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Global Report on Islamic Finance

The Role of Islamic Finance in Financing Long-term Investments

IsDB
البنك الاسلامي للتنمية
Islamic Development Bank

IRTI
المعهد الإسلامي للبحوث والتدريب
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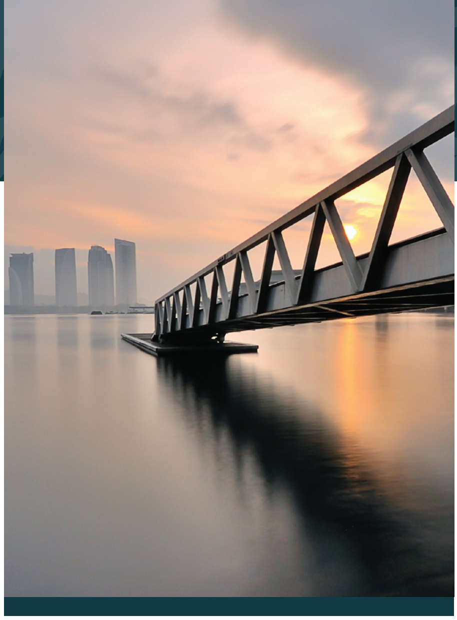

Foreword

The development community is facing the challenge of mobilizing financing for long term investments needed to eradicate poverty, provide education, access to clean water and fight climate change. It appears that there is no shortage of funds as trillions of dollars are invested in securities earning negligible or sometimes negative returns. The question remains: what are the key impediments to attracting funds for long-term investments? This joint report by the Islamic Development Bank (IsDB) Group and the World Bank Group (WBG) attempt to address this question. The theme of the report is quite relevant, timely and has been well justified.

The report rightly proposes incentivizing "risk sharing" and asset-backed finance as the potential mechanism to attract financing for long-term investments. One of the major features of risk-sharing finance is that all participants have 'skin-in-the-game' resulting in alignment of interests. By its very nature, Islamic finance based on the principles of risk sharing (equity and asset-backed financing) offers the right ingredients to mobilize long term financing provided an enabling legal, regulatory, and financial ecosystem is developed. Therefore, Islamic finance can and should occupy this space to make a difference.

For more than 40 years, the IsDB has been practicing Islamic finance and striving to promote economic development through its operations. For attaining long-term sustainable development, the IsDB has embarked on a new initiative to reposition the bank in the changing development finance landscape in the wake of the 2030 global agenda for sustainable development. Under the new initiatives, the IsDB Group is committed to forging partnerships with both public and private sector, insists on the development of financial markets and financial infrastructure, and the wider role of private sector in economic development. In addition, the emphasis is on enhancing the governance mechanism to provide close monitoring and risk mitigation required for risk-sharing system. In this context, the IsDB Group is providing support for the development of financial sectors conducive to Islamic finance globally.
The joint initiative of the IsDB Group and the WBG also reflects a global view regarding the Islamic finance and the role it can play to improve the financing for the long-term investments. I believe the periodic publication of the Global Report on Islamic Finance will not only help to direct the future growth of Islamic finance but also boost the economic development.

I congratulate the technical teams from both institutions on completion of this important report.

Dr. Bandar M. H. Hajjar
President, Islamic Development Bank Group
October 2018

Acknowledgments

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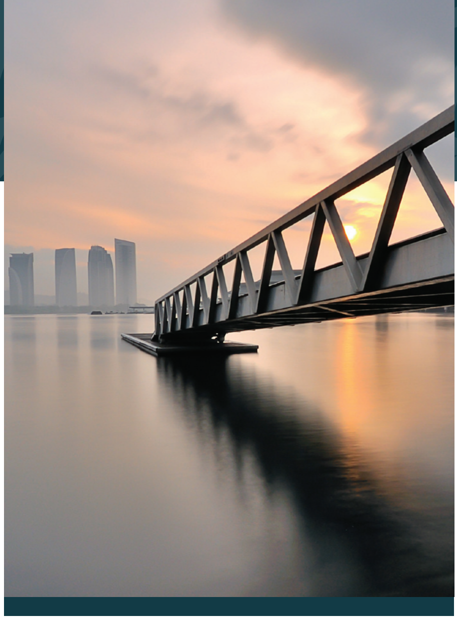
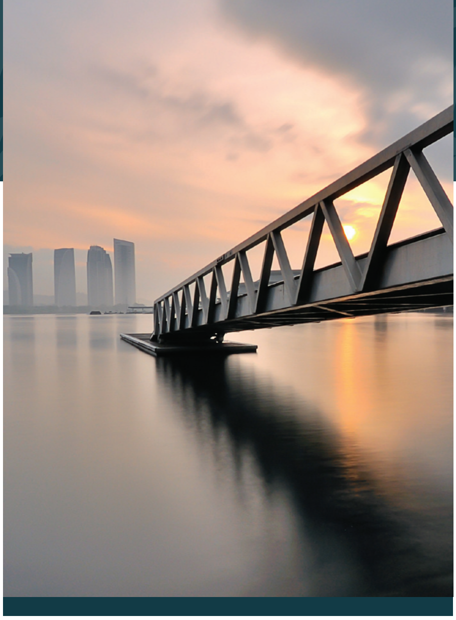


Abbreviations

AAOIFI	Accounting and Auditing Organization for Islamic Financial Institutions
AUM	assets under management
BNM	Bank Negara Malaysia (central bank, Malaysia)
CWM	Crowdfunding-Waqf Model
DAO	decentralized autonomous model
G-20	Group of Twenty
G-30	Group of Thirty
GCC	Gulf Cooperation Council
GDP	gross domestic product
GFC	global financial crisis
IsDB	Islamic Development Bank
IFIs	Islamic financial institutions
IFSB	Islamic Financial Services Board
IFSIs	Islamic financial services institutions
IIFM	International Islamic Financial Markets
IMF	International Monetary Fund
IRTI	Islamic Research and Training In stitute (Islamic Development Bank)
IT	information technology
KPIs	Key Performance Indicators
MDGs	Millennium Development Goals
MENA	Middle East and North Africa
MSEs	micro and small enterprises
MTR	Mid-Term Review of the Ten-Year Framework and Strategies document
OECD	Organisation for Economic Co-operation and Development
OIC	Organisation of Islamic Cooperation
P2P	person-to-person
PPP	public-private partnership
SDGs	Sustainable Development Goals
SMEs	small and medium enterprises
SRI	socially responsible investment
SWF	sovereign wealth fund
UN	United Nations

All dollar-denominated currency is in U.S. dollars, unless otherwise noted.



Glossary

A lot of Islamic technical terms of Arabic origin have, over the last few decades, entered the dictionary of economics, banking, and finance in view of the rise and spread of Islamic economics, banking, and finance worldwide. It is not possible to collect them all and add them all to this glossary, however, the most important and most used ones are provided here. A large number of the teachers, practitioners, researchers, and students interested in learning, practicing, or researching the subjects of Islamic economics, banking, and finance need to know the meanings of these technical terms and their proper usage. Therefore, this glossary has been prepared to facilitate their tasks. It provides broad, general, and precise explanations of the technical terms used in the literature of Islamic economics, banking, and finance. Because the terms were collected and compiled from various sources, it is difficult to recall or point out which term comes from which source. Our thanks and gratitude go to all of those from whom we benefited in compiling this glossary.

Notes

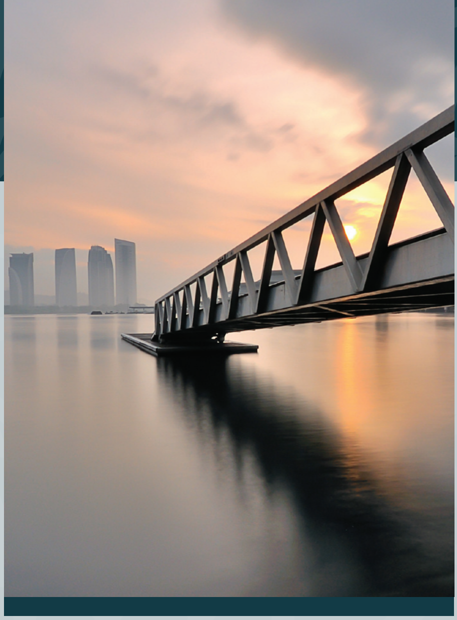
• Usually most of the terms used in this glossary are preceded by the article al-, meaning the. The articles are not used in this glossary, except when it is necessary to keep them, such as al-ghunm bi al-ghurm or al-kharāj bi al-Damān. Therefore, words like al-‘adl, for example, are written just ‘adl without the al- article.

• Some Arabic words bearing the same meanings are pronounced differently. These are separated by a slash / as in the case of ‘arbun/‘urbūn, meaning down payment.

• Both the singular and plural forms of some Arabic words are put in the same entry instead of in two entries. The plural forms are put between parentheses after the singular form, as in the case of عَالِم (عُلَمَاء) ‘alim (‘ulamā’) meaning “scholar(s).”

• The terms used in this glossary are arranged alphabetically according to the second column on the left, entitled “Transliterated as.”

Arabic original word	Transliterated as	English meanings
(بُيُوْع)	bayʿ (buyūʿ)	sale(s)
غَرَر	gharar	excessive risk and uncertainty, ambiguity
حَلَال	ḥalāl	permissible, lawful, allowed
حَرَام	ḥarām	not permissible, unlawful, not allowed
إِحْسَان	iḥsān	benevolence, compassion, kindness
إِجَارَة	ijārah	leasing, rent
اِسْتِصْنَاع	istiṣnāʿ	Manufacturing contract whereby a manufacturer agrees to produce (build) and deliver a well-described good (or premise) at a given price on a given date in the future
مُرَابَحَة	murābaḥah	mark-up sale, sale at a margin
مُشَارَكَة	mushārakah	Partnership whereby all the partners contribute capital for a business venture. The partners share profits on a pre-agreed ratios while losses are shared according to each partner's capital contribution.
مُشَارَكَة مُتَنَاقِصَة	mushārakah mutanāqiṣah	diminishing partnership
قِمَار	qimār	gambling
قَرْض حَسَن	qarḍ ḥasan	interest-free loan
قُرْآن	Qur'ān	the sacred book of Islam
رِبَا	ribā	usury, interest
صَدَقَة (صَدَقَات)	ṣadaqāt	charity(ies)
شَرِيعَة	Sharīʿah	Islamic law
صُكُوْك	sukūk	equity-based certificates of investment
تَكَافُل	takāful	solidarity, mutual support
وَقْف (أَوْقَاف)	waqf (awqāf)	endowment(s), foundation(s), trust(s)
وَكَالَة (وَكَالَات)	wakālah (wakālat)	Agency. A contract whereby one party appoints another party to perform a certain task on its behalf, usually for payment of a fee or a commission
زَكَاة	zakāh (zakāt)	obligatory contribution(s) or due payable to the poor by all Muslims having wealth above nisab (threshold or exemption limit)



Executive Summary

Long-term finance plays a major role in sustainable economic development because it helps advance structural transformation of economies, stimulates development of infrastructure, and provides funds for fixed investments to enhance production capacity. The need for funding long-term investments is so huge that resources by governments, multilateral development banks, and other traditional development partners remain insufficient. The role of the private sector is critical in meeting the challenges of long-term financing needs. However, the existing financing patterns clearly indicate the preference of investors for assets with short-term maturity despite their meagre returns. Thus, extending the maturity structure of finance is a key policy challenge for the development community.

Market factors under existing conditions, together with systemic biases toward short-term debt and risk transfer mechanisms, substantially reduce the availability of funding for long-term financing, which creates deficiencies in resource allocation and a gap in long-term funding, despite the ample supply of global savings. While the gap exists globally, it is particularly critical in developing economies because it hampers the implementation of much-needed investment projects to enhance welfare. This edition of the Global Report on Islamic Finance presents a global perspective on the needs for and impediments to long-term financing. To deal with the ongoing underfunding problem in long-term investments, it proposes the use of Islamic finance, which is based on risk sharing rather than risk transfer, and thus offers many advantages.

Key impediments to raising long-term financing

The report identifies many impediments on both the systemic and the usual demand and supply level in mobilizing funds for long-term investments. Although there are several issues stifling the financing for long-term investments, the report finds that the most important impediments are the over-allocation of savings to short-term and medium-term instruments, excessive leveraging, and incentives for risk transfer. The risk-transfer paradigm of conventional finance not only constrains funding for long-term investment but also reinforces the plight of overleverage and short-termism in the current global financial system that is responsible for many more challenges for the contemporary global economy.

Risk-sharing and Islamic finance

The potential of long-term finance can be unlocked by adopting a risk-sharing structure that reduces the systemic risk and moral hazards associated with the conventional risk-transfer structures. The sharing of risks and contingency of returns can allow socially optimal projects to be undertaken that might otherwise seem unfeasible from a risk-transfer perspective. Risk-sharing also enables the commitment to mutuality and long-term horizons in investing.

Against this backdrop, the report introduces Islamic finance as one of the possible ways to meet the challenges of providing adequate funds to long-term investments on a sustainable manner. Risk sharing is the preferred organizational structure for Islamic economics and finance. Islamic economics and finance offer a framework based on risk-sharing that can serve a viable means of long-term investment financing. Importantly, Islamic finance can mobilize resources to the real sector, rather than channeling much-needed funds to the money markets. This risk-sharing framework attempts to address the shortcomings of the conventional model. It is based on four pillars: institutional foundations in line with Islam's rules of behavior; accountable governance and legal system; a long-term investment horizon; and mobilization of funds on the basis of sharing risks among parties.

Challenges for Islamic finance

The exceptional growth of the Islamic finance industry in the last decade is a remarkable development, but it began from a low base and still constitutes a small fraction of global finance. The risk-sharing nature of Islamic finance has attracted attention in all financial sectors, including banking, capital markets, and insurance. The report provides a comprehensive review of the status and development of various sectors and how each sector is contributing to long-term financing. The main finding from this analysis is that despite the huge potential, Islamic financial sector is a small player in the global financial markets and requires a concerted push for the regulatory and legal changes to take root.

The report highlights several challenges for Islamic finance in mobilizing funds to long-term impactful investments. To reduce uncertainty and provide protection of property and investors rights, macroeconomic and political stability, institutional development, and an enabling legal and regulatory regime are necessary. At the micro level, the organizational framework of financial institutions and the diversity of financial instruments offered determine the extent to which long-term financing needs are met. Currently, Islamic financial institutions are subject to the similar regulatory regime as conventional institutions, thus forcing them to develop financial instruments similar to conventional instruments, even if those instruments are Sharī'ah--compliant. However, this stricture limits the full benefits that could be obtained through the risk-sharing feature of Islamic finance.

The report reviews the status and developments of Islamic finance for a sample of 12 member countries of the Organization of Islamic Cooperation (OIC) in the light of the 10 years that have elapsed since the foundational report, Islamic Financial Services Industry Development: Ten-Year Framework and Strategies 2007 (IRTI and IFSB 2007), was issued. The findings suggest that countries are at different levels of development with respect to the key recommendations related to the developments in national plans and strategies, the legal and regulatory frameworks, the Sharī'ah governance regime, liquidity infrastructure, and deposit insurance schemes. Some countries, such as Indonesia, Malaysia, Oman, and Pakistan, have adopted national action plans for the development of the Islamic financial sector, including separate Islamic financial laws. In other member countries, adoption is still at very early stages.

Policy recommendations

Despite the remarkable growth of Islamic finance, policy interventions are needed in several areas to better utilize the merits of Islamic finance in mobilizing funds for long-term investments. The report's policy recommendations have a dual aim: not only to promote Islamic finance to make the provision of long-term financing more efficient, but also to encourage a global paradigm shift away from over-reliance on short-term instruments toward adding economic value. To these ends, the report offers two main sets of recommendations:

a. Strengthen the financial system by developing a supportive legal, administrative, and regulatory environment.

A financial sector with weak governance and lack of transparency is hampered by market frictions, inefficiencies, and financial exclusion. Fundamental institutional problems and market failures need to be addressed to reduce uncertainty and protect property and investors rights, which are impeding the mobilization of long-term financing at both the systemic and the usual demand and supply levels. The report recommends the following:

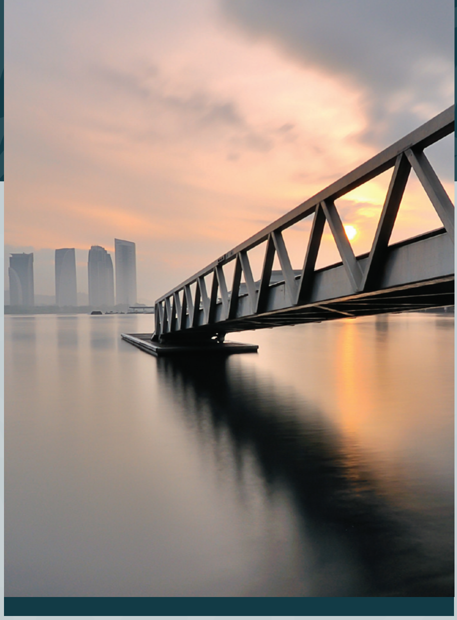
- Introduce a supportive legal, administrative, and regulatory infrastructure that establishes and protects investors' rights, provides effective mechanism for dispute resolution, institutes a sound insolvency framework, and strengthens financial supervision for the efficient mobilization of resources on the basis of risk sharing.
- Adhere to strong corporate governance values that increase the accountability and transparency of the financial system.
- Enhance coordination among standard-setting bodies to provide unified Sharīʻah, regulatory, and accounting treatments.
- Develop secondary markets to provide liquidity in the markets for long-term financing instruments.

b. Enhance the institutional framework and diversity of instruments for long-term financing

This report finds that institutions and instruments associated with risk-sharing finance can mitigate agency conflicts because all parties partake of the risks as well as the rewards: that is, they have "skin in the game." However, few instruments are available to serve this purpose, mainly because universal regulatory requirements are commonly adopted to cover both conventional and Islamic financial institutions. The report emphasizes that innovations in financial institutions and instruments that promote risk-sharing and asset-backed financing are essential not only to deleverage the financial system but also to make it more conducive to long-term finance. A financial system based on asset-backed financing would encourage real transactions and growth in the real sector. To this end, the report makes the following policy recommendations:

- Promote the development of capital markets for Sharīʻah-compliant instruments to mobilize resources for long-term projects by engaging institutional investors, including pension funds, sovereign wealth funds, asset management firms, venture capitalists, and private equity firms.
- Engage Islamic banks in Sharīʻah -compliant syndicated financing to finance long-term and larger projects.
- Introduce regulations to unlock the potential of Islamic banks to provide long-term financing using investment accounts.
- Provide incentives for Islamic financial innovation based on FinTech solutions, especially for mobilizing the dormant Islamic social sector to support investments with environment and social as well as economic impacts (impact investing). Crowdfunding, for example, can pool resources (zakāt, ṣadaqāt, waqf) from small surplus units and channel them toward investment in large-scale projects that would otherwise be beyond the scope of any one individual.
- Capitalize on blended finance and public-private partnerships (PPPs) by developing new products and expanding existing ones to increase the use of Islamic finance for projects of mutual benefit to the public and private sectors.

The report demonstrates how risk-sharing finance can play a key role in mobilizing funds to long-term investments and provides examples of the ways that Islamic finance can be utilized to release the potential of long-term financing that advances social, environmental, and economic goals.



Overview

The adoption of the Sustainable Development Goals (SDGs) by the development community testifies to a shared responsibility toward the well-being and empowerment of mankind. To achieve the desired sustainable development, there is a huge need for investment in capacity-building assets. The United Nations estimates a gap of $2.5 trillion between the annual investment needs of the SDGs of $3.9 trillion and current annual investments of $1.4 trillion (UNCTAD 2014). The challenge posed by the scale of funding requirements is further aggravated by the need to commit funds for long-term horizons. Moreover, there is broad consensus that to deal with the complex challenges of climate change, growing urbanization, and social imbalances, the world needs to invest more in long-term sustainable projects.

The need for long-term funding for investment to expand the sustainability and productive capacity of the modern economy was explored in a World Bank Report in 2015. The findings of the report (World Bank 2015) suggest that by its nature, long-term finance exerts a stabilizing influence on the financial system. Long-term investors can provide necessary support during economic downturns, given their extended investment horizon, countercyclical strategies, and emphasis on long-term value. In contrast to short-term liquidity-chasing investors, long-term investors mitigate investees' rollover risks (risks associated with the refinancing of the debt) and fund crucial societal needs. Access to long-term investment vehicles can also improve households' welfare by allowing them to smooth their consumption over time and share the benefits of economic growth. Long-term financing is often considered to be an important driver of sustainable economic development, helping in structural transformation, infrastructure investments, and budgetary support.

Although estimates of long-term investment financing needs vary considerably and are not necessarily precise, studies conclude, unanimously, that the needs are extremely large. Over the next 15 years (2016–30), the global economy will need to invest $50 trillion to $90 trillion in infrastructure assets such as urbanization investments, transport systems, energy systems, water and sanitation projects, and telecommunication systems (Woetzel et al. 2016; Bhattacharyna, Oppenheim, and Stern 2015). This translates into almost doubling the current infrastructure spending of $2 trillion to $3 trillion per year. At the firm level, long-term financing is generally used to acquire fixed assets, equipment, and the like. Empirical evidence suggests that the use of long-term finance is associated with better firm performance. Access to long-term financing was significantly constrained after the global financial crisis of 2007–09. While the impact varied across countries of different income grouping, small and medium enterprises in lower-middle- and low-income countries were hardest hit. Lack of long-term finance exposes deserving firms to rollover risks, which may in turn dissuade longer-term fixed investments, with adverse effects on economic growth and welfare. The World Bank Group estimates a funding gap of $2.1 trillion to $2.6 trillion for micro, small, and medium enterprises (MSMEs) globally (Stein, Ardic, and Hommes 2013).

The mobilization of funding for long-term investments is faced with many impediments on both the systemic level and through the usual demand and supply factors. Leveraging and incentives for risk transfer, the unavailability of financially viable long-term projects, political myopia, macroeconomic instabilities, high entry barriers, inadequate risk assessment frameworks, weak legal and institutional frameworks, illiquidity in the financial markets, fiscal consolidation, and restrictive lending environments are the main issues stifling the financing for long-term investments.

On the other hand, it is obvious that the problem is not the paucity of financial resources, as there is an ample supply of global savings to meet the needs of long-term investment. According to World Bank estimates, more than $10 trillion is invested in negative interest rate bonds; $24.4 trillion is invested in low-yield government securities; and $8 trillion is sitting in cash, waiting for better investment opportunities (World Bank 2017). Thus, the problem is the "allocation" of these resources, which vastly underfund long-term investment.

In this regard, various policy initiatives have been endorsed to mobilize international organizations (including the International Monetary Fund, the Organization for Economic Co-operation and Development, the World Bank Group, and Islamic Development Bank Group) to address the potential detrimental effects of a prolonged underfunding of long-term investment. While there are small differences of opinion as to the specifics of the proposals to addressing the gap, they agree on the diagnosis. Islamic economics and finance, owing to its nature of risk-sharing and equity participation, provide an alternative perspective and solution to the ongoing challenges mentioned.

To explore the potentially pivotal role of Islamic finance in long-term financing, the World Bank Group and Islamic Development Bank Group decided to focus on the topic of "Financing Long-Term Investments" as the general theme for the second edition of the Global Report on Islamic Finance (GRIF). This report has five main objectives:

1. To deepen understanding of the significance of long-term financing by documenting why long-term financing is needed.
2. To provide a critique of the traditional financing model of transferring risk by presenting the theoretical rationales and discussing policy issues related to financing of long-term investments from the perspective of Islamic economics and finance.
3. To formulate a theoretical framework that emphasizes the central role of risk-sharing as a mechanism for acquiring long-term investment for sustainable economic development and provide some empirical evidence of widespread needs for long-term investments.
4. To review recent developments and trends in Islamic finance as a means of long-term financing, and to discuss challenges that Islamic finance faces in mobilizing long-term finance.
5. To explore policy options to remove key barriers impeding the development of Islamic financial industry for long-term financing.

The report identifies the existing tendency of conventional finance to transfer risk to be one of the underlying reasons for over-allocation of savings to short-term and medium-term instruments. This tendency not only constrains funding for long-term investment, but is also responsible for many more problems and challenges for the contemporary global economy, including stagnation of economies around the world, constrained private investment, the decline in productivity, and the sizable increase in global debt since the global financial crisis.

This report suggests adopting a risk-sharing solution to address the risk-transfer problem impeding long-term investments. Risk-sharing financing may resolve some of the major problems and meet the challenges associated with risk transfer. The risk-sharing mechanism has the potential to create a culture of trust, increase investment (by funding projects that are rationed out of risk-transfer markets), reduce individual risk aversion through collective risk taking, and increase financial inclusion (Bowles 2013). All these advantages increase x-efficiency[1] in the economy, which is the ability to get maximum output from the inputs, leading to expanded productivity (Leibeinstein 1966). More importantly, risk-sharing finance reduces inequality of income and wealth distribution by allowing lower-income classes to become holders of real assets and builders of wealth.

Given the benefits of risk sharing, the report addresses the question as to why there is so much reluctance to risk-sharing financing and suggests that current economic development models rely heavily on the leverage and liquidity in the financial markets. However, both these factors impede the provision of long-term funding due to the higher uncertainty associated with the long-term contracts and the procyclical nature of credit markets.

Another reason for the prevalence of leverage-based risk-transfer instrument is the set of market imperfections leading to ex ante adverse selection by the lenders and ex post moral hazard of the borrowers. The presence of such market imperfections creates a consistent rift between the borrower and the lender. In a debt contract, the lender attempts to address the market imperfections by requiring collateral and charging a risk premium to compensate lenders for the default of the borrower. However, in the event of default, the lender still pushes for recovery from the borrower and restricts further lending. In such a scenario, any of the potential causes of distress in the financial system may perpetuate a vicious cycle of defaults and crisis due to borrowing restrictions and liquidity constraints. There is mounting evidence suggesting that interest-bearing debt and leveraged balance sheets pose systemic problems and can potentially undermine sustainability.

One of the important elements in the collateral and risk premium approach is the unilateral motives of the lender for the recovery of loan and interest without regard to the fate of the venture. This undermines the commitment to mutuality among the parties in a financing relationship, enhances individual risk aversion, and discourages investment for long-term projects.

In this regard, these problematic aspects of leverage-based risk-transfer type of financing have been under question for years, especially after the global financial crisis. A number of recent studies have offered fundamental critiques of the collateral and risk premium approach. Taleb (2008) regards the higher amount of equity as a necessary condition to control extraordinary and unexpected risks, which he referred to as black swans[2]. Taleb posits a view of risk relationships that is systemic. A player that thinks systemically looks at the system organically, rather than mechanically, recognizing that the system must adapt itself to the changing context and environment, from both endogenous and exogenous sources of change. By contrast, conventional debt finance models have a partial and fundamentally self-interested view of risk relationships.

Bowles (2013) emphasizes that risk-sharing contracts have characteristics that mitigate the risk of contract violations arising from the agency conflict. Gintis (2002) argues that the self-interested "rational" actor (Homo economicus) depicted in neoclassical economics is one of the types of human subjects characterized as engaging in strategic interactions. On the other extreme of the Homo economicus, Gintis posits Homo reciprocans, who exhibits strong reciprocity, and a propensity to cooperate and share with others— even when there are no plausible future rewards or benefits from so behaving. This reciprocal approach emphasizes mutuality, commitment ("skin in the game"), incentives to focus on the common good of the parties to the contract, and horizontal governance, which is self-enforcing (in contrast to the top-down governance of risk-transfer contracts).

Islam endorses risk sharing as the preferred organiza-

[1]The term "x-efficiency" describes the degree of efficiency maintained by economic agents under conditions of imperfect competition.
[2]Taleb discusses in his book (2007) that unexpected events which are considered extreme outliers play significantly larger roles than regular occurrences. Thus, any analysis omitting outliers lacks substantial portion of information. This idea has implications on finance as well as history, science, and technology. In finance, Taleb's Black Swan Theory is acknowledged in the discussion of tail risks. A conservative approach to leverage, i.e. strong equity capital, may limit the probability of tail risks.

tional structure for all economic and financial activities. From this perspective, Islamic economics and finance offer a framework based on risk sharing that can serve a viable means of long-term investment financing. Importantly, Islamic finance can mobilize resources to the real sector, rather than channeling much-needed funds to the money markets. This risk-sharing framework attempts to address the shortcomings of conventional model. It is based on four fundamental pillars: 1) institutional foundations in line with Islam's rules of behavior; 2) an accountable legal system and modes of governance; 3) a long-term investment horizon; and 4) mobilization of funds on the basis of sharing risks among parties.

Establishing efficient institutions and an institutional framework in line with the objectives of Islam is essential to creating an enabling environment for long-term finance. While institutions lay the foundation of a system, a sound legal system and an appropriate governance mechanism is needed to ensure smooth functioning of the financial system. The need is more pronounced in contracts based on risk sharing, given the contingent nature of parties' claims and the limitation of human foresight. The core principle of risk sharing in Islamic finance stipulates that investors and users of funds share the outcome of the project or asset being financed. Encouraging financial instruments that promote risk sharing and asset-backed financing could make the financial system more conducive to long-term finance. The development of equity-based capital markets could play an important role in mobilizing resources without creating leverage in the economy.

Islamic finance is well suited for long-term financing because of its emphasis on materiality, property rights, risk sharing, and addition of value. The report, however, highlights several challenges for Islamic finance in mobilizing funds for long-term investment that supports broader goals of serving the economy, society, and the environment. The biggest challenge in achieving the potential of Islamic finance for funding long-term investments lies in the dominance of the Islamic banking subsector. The underdevelopment of Islamic capital markets is another impediment that undermines an important channel through which long-term investment financing is normally provided. Further challenges are the lack of prerequisites for risk-sharing-based Islamic finance, including property rights and good governance; market failures and policy distortions; lack of awareness of the full cost of risk transfer; and under-utilization of the Islamic social sector as an area of long-term investment.

To advance discussion about the state of acquiring long-term funding using the risk-sharing mechanisms, the report provides an empirical review of long-term investment financing from the perspective of Islamic finance. The review identifies a well-functioning financial system as one that is based on appropriate governance mechanisms, supporting infrastructure that enhances risk sharing, and institutional arrangements to promote trust and cooperation to support financing for long-term investments. With this standard in mind, the review then considers the broader challenges in creating an enabling environment for long-term financing. Specifically, the review compares the relative state of member countries of the Organization for Islamic Cooperation (OIC) with respect to the rest of the world in terms of their ability to and progress in creating this enabling environment. The review analyses factors affecting the supply of and demand for risk-sharing long-term finance, such as macroeconomic and political stability, institutional development, and risk-sharing friendliness. It also examines the relative status of financial development and long-term financing in the member of the OIC countries.

Having drawn an accurate picture of Islamic finance as a means of mobilizing funds for long-term investments, the report concludes by providing a set of policy recommendations to address the issues highlighted and to ensure that prerequisites are in place to unlock the potential of Islamic finance for long-term financing in OIC member countries. Table O.1 summarizes the recommendations and policy interventions suggested in the report.

Table 0.1. Policy Recommendations

Challenges	Policy recommendations	
	Public policies	**Financial institutions**
Political and macro-economic environment	• Enhance political and macroeconomic stability to reduce long-term risks. • Pursue prudent monetary and fiscal policies to keep inflation low. • Strengthen the institutional framework to promote protection of property rights, rule of law, good governance, and sound infrastructure to enhance credit information and information about long-term projects. • Establish stable and predictable legal and regulatory environments to reduce long-term risks. • Provide appropriate incentives for long-term financing to all stakeholders. • Ensure effective enforcement of contracts over longer terms. • Work on changing the investment culture and behavior to favor long-term investments.	• Provide appropriate tax incentives for extending maturities. • Enable *shari'ah* compliant risk-mitigating mechanisms for extending maturities. • Review the regulatory and accounting treatments of assets held with long-term horizons to assess their systemic impact on the appetite for long-term investment. • Establish sectionally specific investment banks and deepen their involvement in the economy in order to boost the mobilization of funds for long-term investments through risk-sharing–based mechanisms.
Dominance of an over-exposed Islamic banking subsector	• Amend the legal and regulatory framework regarding financial markets, institutions and instruments to pave the way for the development of nonbank Islamic financial sector. • Increase competition in the financial sector by promoting other nonbank financial institutions (NBFIs). • Improve market infrastructure to support and expand Islamic capital and *sukūk* markets.	• Establish Islamic NBFIs, such as leasing/*ijārah* companies and Islamic investment banks. • Develop and expand Islamic institutional investors (mutual funds, pension funds, and the like). • Encourage the establishment of risk-sharing insurance and reinsurance (takaful and retakaful) companies owned by the stakeholders of risk-sharing Islamic financial institutions to help mitigate the reluctance to engage risk-sharing–based financing. • Adopt best-practice guidelines to reinforce long-term horizons in the governance and portfolio management of Islamic institutional investors and sovereign wealth funds (SWFs). • Increase the efficiency of structural surpluses in national savings by redirecting them to SWFs with a long-term horizon.

table conties next page

Table 0.1. Policy Recommendations

(continued)

Challenges	Policy recommendations	
	Public policies	Financial institutions
Lack of prerequisites for Islamic finance based on risk sharing	• Create an enabling environment for risk-sharing–based fund mobilization. • Ensure the level playing field for risk-sharing–based finance by eliminating the relevant legal and regulatory impediments as well as the debt-equity tax bias. • Reorient institutional environment to support asset- and equity-based long-term financing. • Strengthen the information infrastructure to enhance credit market information on long-term projects.	• Promote long-term savings through collective investment vehicles. • Establish organizations that utilize asset-based and equity-based financing (leasing companies, venture capital firms, private equity firms, crowd-funding platforms, and the like). • Improve the quality of corporate governance to support firm's long-term viability and financing. • Consider providing risk mitigation mechanisms such as risk-sharing public-private partnerships that enhance long-term investment prospects. • Improve skills to manage long-term risks.
Market failures and policy distortions	• Change regulatory and tax regimes to create a level playing field for debt and equity. • Create credit information schemes to assess the credit history and ratings of firms and individuals. • Create incentives to promote long-term savings. • Provide guarantees and risk insurance to reduce uncertainty related to long-term investments.	• Develop efficient products that promote long-term savings and investment. • Create incentives that promote equity-based long-term financing. • Strengthen accounting and disclosure rules, internal and external auditing systems, corporate governance, auditing systems that verify *shari'ah* compliance, and *shari'ah* compliance screens.
Financial education and consumer protection	• Improve financial literacy of Islamic financial products for entrepreneurs and households. • Strengthen the legal and institutional environment for contract enforcement protecting investors' rights.	• Highlight the benefits of long-term risk-sharing modes to both investors and financial institutions.
Underutilization of the Islamic social sector	• Reform the legal and regulatory environment to support long-term investment in the Islamic social sector.	• Develop innovative solutions to re-invigorate the *waqf* sector for investing in long-term projects.
NextGen Islamic finance	• Develop an enabling regulatory framework to ensure the smooth functioning of Fintech markets • Establish educational institutions to develop adequate knowledge and skills exist on Islamic finance in general and capital markets and institutions in particular • Promote innovation by providing supporting institutional set-ups.	• Develop financial institutions reflecting the broader goals of serving the economy, society, and the environment. • Develop innovative fintech-based financial institutions to provide diverse financial products.

Overview of the Chapters

The report consists of four chapters providing discussions on the significance of long-term finance, policy challenges, and recommendations to address these issues, as well as an investigation of the effectiveness of the Islamic finance framework in promoting financing for long-term investments.

Chapter 1 discusses the importance of long-term financing in driving sustainable economic development and helping in structural transformation, infrastructure investments, and budgetary support. Estimates of long-term investment financing needs vary considerably and are not necessarily precise. However, studies conclude, unanimously, that needs are extremely large and are unlikely to be met by the public sector alone. Capital from the public, private, and voluntary sectors must be mobilized to fill funding gaps.

Mobilization efforts are faced with various impediments with respect to both systemic factors and the usual demand and supply factors. The 2007−09 global financial crisis exposed flaws in finance theory and current practices and highlighted the need to revisit some conceptual frameworks. Most notably, the chapter considers the financial infrastructure, peripheral supporting institutions, and legal environment and finds that they reinforce bias toward debt and risk transfer mechanisms, inducing overleverage and short-termism in the current global financial system.

The demand for long-term investment financing by project planners is constrained by the availability of financially viable long-term projects, political myopia, macroeconomic instabilities, and high entry barriers, among other impediments. The supply of long-term investment financing is constrained by the lack of adequate risk assessment frameworks; weak legal and institutional frameworks; and illiquidity and investors' short-termism, which are effectively obstacles in the way of the efficient allocation of savings and capital.

The chapter deals with the issue of sustainability in long-term investment financing. It criticizes current financial systems, which are characterized by financialization, and the supply of a narrow range of debt-based instruments that transfer risk, such as bank credit and bonds, by entities that lack commitment to long-term horizons. As a viable alternative, the chapter proposes risk-sharing long-term finance. Risk sharing can provide the necessary financing without the need to take on excessive leverage, which could in turn help stabilize government spending and reduce debt servicing pressures. Unlike other modes of finance, risk sharing is favorable to long-term impact financing made in companies, organizations, and funds with the aim of generating social or environmental benefits alongside (or instead of) a financial return. Sharing the risks of economic and financial transactions also ensures the stability of the financial system. This in turn will increase the allocation of resources to the real sector, rather than channeling excessive financial flows to the financial sector, leading to over-financialization of the economy.

Risk sharing is one of the most important aspects of Islamic finance. The chapter provides a theoretical framework for acquiring long-term investment from an Islamic finance perspective. In a truly risk-sharing framework, Islamic finance can serve the real sector of economy more effectively in an equitable and sustainable manner than conventional finance. Indeed, the vision of Islamic finance is to offer itself as a source of stability against the plight of overleverage and short-termism in the current global financial system.

Chapter 2 empirically investigates the effectiveness of elements of the Islamic finance framework put forward in chapter 1 in promoting financing for long-term investments. These elements are used to characterize a well-functioning financial system as one based on appropriate governance mechanisms, supporting infrastructure that enhances risk-sharing, and institutional arrangements that promote trust and cooperation. This comprehensive approach offers a more functional view of a long-term sustainable financial system than the narrow focus on traditional one-dimensional proxies, such as the depth of financial markets.

The investigation depicts and compares the relative state of member countries of the Organisation of Islamic Countries (OIC) with respect to the rest of the world in terms of broader challenges in creating an enabling environment for long-term financing. The chapter's findings validate the hypothesis that financing based on risk-sharing principles promotes long-term investments. The strength of the presence of Islamic finance in a country (measured by the share of sukūk issuance and Islamic banking in GDP) is positively correlated with the financial development index.

To assess the relative status of OIC countries with respect to long-term financing compared to their counterparts, two proxies are used. The first proxy is the percentage of firms citing the maturity of loans as insufficient. The second proxy is fixed asset investment. With respect to the first proxy, the chapter finds that firms in OIC countries are more likely to be denied financing on the basis of the size and maturity of their loan application. Small firms are more vulnerable than their counterparts in this regard. With reference to the source of investments, small and medium firms tend to prefer internal funds. Use of external finance, such as banks, seems to be weaker in OIC countries compared to non-OIC countries. Moreover, OIC countries lack a well-developed institutional investor base.

Chapter 3 presents an overview of developments and challenges in the Islamic financial sector. It does so by analyzing the development in various sectors of Islamic finance, with a special focus on risk-sharing and long-term financing aspects, where possible. At present, the bulk of Islamic finance is provided by Islamic banks. The future of long-term Islamic funding depends very much on the development of non-bank financial intermediaries (NBFIs). These include Islamic capital markets, takāful markets, other institutional investors such as pension funds, sovereign wealth funds, private equity funds, and awqāf (endowment funds). The long-term nature of many of these NBFIs means that they can act as shock absorbers in many financial markets.

Awqāf are currently underutilized. They have the potential to engage the private sector and become a systemic approach to overcome the shortages in long term financing. Awqāf are rich in one of the important factors of production—land—as they involve the donation of a building, plot of land, or other real assets. However, they are short on other factors such as capital, labor, and organization. Given that the problem of long-term financing is not simply of time, but is also a problem of size and scale, awqāf may well be used to alter projects' cash flows by providing a factor of production of significant value, so as to reduce the otherwise large upfront cost and make the project a viable business case for the private sector.

The chapter examines recent innovations in financial technology (fintech)—such as "smart" contracts, decentralized autonomous organizations (DAOs), block-chains, crypto-currencies, and crowd funding—that are closer to the spirit of Islamic law of contracts, with an undiluted focus on cooperation, transparency, and avoidance of any kind of uncertainty regarding the settlement of contracts.

Given the complexity and multidimensionality of the challenges at hand, no single authority can drive change and mobilize long-term finance alone. A collaborative and concerted approach is needed by multilateral development banks and organizations. This would involve system-wide monetary, fiscal, and structural policies to correct disincentives to risk transfer that lie at the core of the current conventional financial system. The recommendations proposed in the chapter are based on principles with universal application across geographical areas and financial systems.

In the sphere of Islamic finance, efforts to mobilize significant funding for investments with a long-term horizon are impeded by the dominance of the Islamic banking subsector; the lack of prerequisites for risk-sharing-based Islamic finance—including well-functioning institutions and rules of behavior that protect investors, creditors, and property rights; trust in government and institutions; rule of law; good governance; and a developed financial system; market failures and policy distortions; lack of awareness of the full cost of risk transfer; and underutilization of the Islamic social sector as an area of long-term investment.

Chapter 3 identifies a number of areas in which policy interventions are needed to shift away from overreliance on short-term instruments toward adding economic value through a complete spectrum of Islamic financial instruments and unlocking of maturities. The empirical analysis in chapter 3 lends support to this proposition. It indicates that a country characterized by better governance structure comprising a sound regulatory and supervisory framework, rule of law, strong institutions, and an effective government is more likely to issue long-term sukūk than short-term or medium-term sukūk.

Chapter 4 presents an overview of the overall status of the business and regulatory environment in the OIC member countries. It also discusses the specific status of some key legal and regulatory infrastructure institutions in a sample of 12 OIC member countries (Bangladesh, the Arab Republic of Egypt, Indonesia, Malaysia, Nigeria, Oman, Pakistan, Saudi Arabia, Senegal, Sudan, Turkey and United Arab Emirates) representative of different geographical regions and the levels of development of the Islamic finance sector. The 2014 Mid-term Review by the Islamic Development Bank Group, the Islamic Research & Training Institute, and the Islamic Financial Services Board is used to gauge the status of the business and regulatory environment, focusing on key elements to promote a robust Islamic financial services industry. They include:

- National plans and strategies for Islamic finance
- The legal framework
- The regulatory framework
- The Sharīʻah governance regime
- Liquidity infrastructure
- Deposit insurance schemes

On average, OIC member countries score better than the world average in the Doing Business scale and lower than the world average in terms of their regulatory environment.

Drawing on the report's discussions and findings, the chapter concludes by providing a roadmap for supportive public policy, a sound enabling environment, and conducive financial infrastructure to strengthen Islamic finance and provide appropriate incentives for long-term financing. The full spectrum of necessary policy reforms extends beyond banks to include institutional investors, Islamic capital markets, the Islamic social sector, and Islamic fintech. Policy makers are strongly urged to consider the impact of any policy regime on the incentives of different types of investors to participate in the long-term financing market before implementing that policy. Deliberation is necessary to avoid the pitfalls of some of the existing standards and regulations, which are unintendedly detrimental to long-term investments.

Most of the solutions proposed in the conventional finance literature to overcome short-termism of financing deal only with creating new products, energizing dormant players (such as revitalizing pension funds and activating institutional investors), and improving the quality of institutions and governance. These measures will definitely help in extending the tenure of available financing, but they are not sufficient. Similar policies are often recommended for the Islamic finance sector. This recommendation is also beneficial, as approximately the same forces that can help long-term investments in conventional finance can help enhance long-term finance in Islamic financial sector.

However, these recommendations do not go far enough. Islamic finance has much greater potential to increase the proportion of sustainable long-term finance if a culture of risk sharing and equity financing is developed and the institutional environment is improved.

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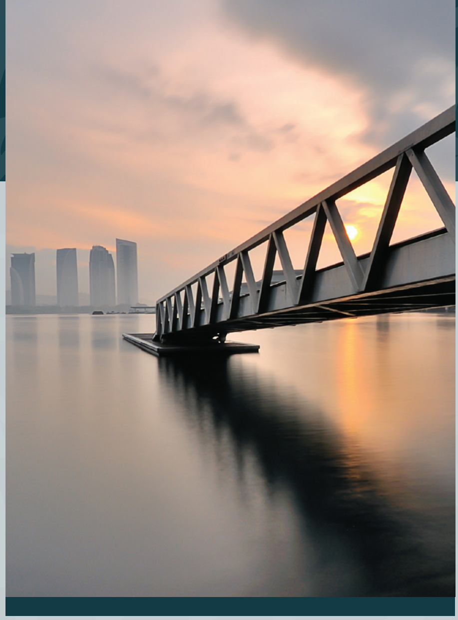


Chapter 1
Financing for Long-term Investments: A Risk-Sharing Islamic Finance Model

1.1 Introduction

The adoption of the Sustainable Development Goals (SDGs) by the development community testifies to a shared responsibility toward the well-being and empowerment of mankind (World Bank and IsDBG 2016). To achieve the desired sustainable development, there is a huge need for investment in capacity-building assets (World Bank 2015). The United Nations estimates a yearly gap of $2.5 trillion between the annual investment needs of the SDGs of $3.9 trillion and current annual investments of $1.4 trillion (UNCTAD 2014). The challenge posed by the scale of funding requirements is further aggravated by the need to commit funds for long-term horizons. Moreover, there is broad consensus that to deal with the complex challenges of climate change, growing urbanization, and social imbalances, the world needs to invest more in long-term sustainable projects.

The world is facing a systemic dilemma. Advanced countries are aging and constrained fiscally to invest in long-term projects. Emerging markets need huge amounts of financing for long-term investments. However, against a backdrop of low interest rates, financialization of assets, and investor short-termism, markets appear to be unwilling to commit funds for long-term projects with higher perceived risks[3]. Although leverage at the system level had increased to a new record high of $217 trillion (over 327 percent of GDP) by early 2017, compared with $142 trillion (269 percent) in the fourth quarter of 2007 (IIF 2017; McKinsey & Company 2015), the supply of long-term funding is not matching the demand. The supply of long-term funding could be affected because the global economy may be entering a phase of synchronized recession or secular debt deflation arising from a phase of deleveraging in the wake of the crisis, unwinding of unconventional monetary

[3] This could be due to the unavailability of good projects or projected returns that are difficult to obtain within specified period. For example, private equity funds usually have a 10-year lock-up period, and most long-term investments, especially infrastructure projects, do not yield their full return until the end of that period.

[4] Long-term financing is the provision of long-dated funds for capital-intensive undertakings that have multiyear payback periods. The Group of Twenty (G-20) broadly defines long-term financing as all funding with a maturity of at least five years. Equity is also often considered a long-term financing instrument because it has no maturity date (World Bank 2015).

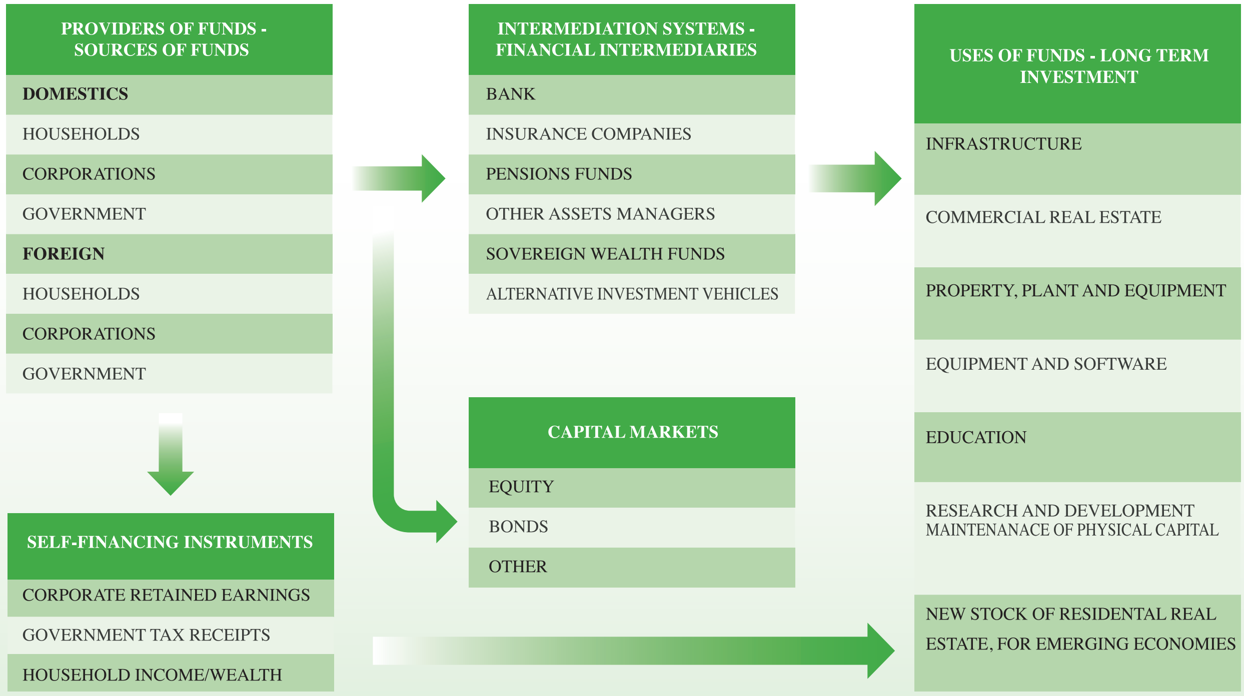
policy, and rising asset prices, accompanied by declining commodity prices and trade volumes, Sheng (2017) argues.

The need for long-term funding for investment to expand the sustainability and productive capacity of the modern economy was explored in a World Bank Report in 2015[4]. The findings of the report (World Bank 2015) suggest that by its nature, long-term finance exerts a stabilizing influence on the financial system. Long-term investors can provide necessary support during economic downturns, given their extended investment horizon, countercyclical strategies, and emphasis on long-term value (Aghion, Howitt, and Mayer-Foulkes 2005)[5]. In contrast to short-term liquidity-chasing investors, long-term investors' can stabilize the financial system, mitigate investees' rollover risks, and fund crucial societal needs. Access to long-term investment vehicles can also improve households' welfare by allowing them to smooth their consumption over time and share the benefits of economic growth (Case, Quigley, and Shiller 2013).

1.2 Why Long-term Financing?

Long-term financing is used to fund various type of projects that can expand the productive capacity of

Figure 1.1 Framework of Provision for Long-Term Financing



Source: G-30 (2013).

[5]For example, the Australian superannuation sector (the arrangements put in place by the Australian government to enable people in Australia to accumulate funds to provide them with income in retirement) accounted for only 50 percent of the banking system assets in 1997, but by 2013, its share had grown to 60 percent. During the 2007–09 global financial crisis, when Australian bank shares were under pressure because of foreign sales, the superannuation funds played a major role in buying up shares when they were cheap and providing capital increases where necessary (The Australian Government Treasury 2014).

an economy (all things being equal)[6]. Long-term financing is an investment tool that finances crucial projects in the areas of infrastructure, research and development (R&D), education, technology, and innovation that can increase future prospects for innovation and competitiveness (see figure 1.1). Channeling long-term financing to particular productive projects eventually generates greater returns for society in the form of expanding vibrant services, increasing quality of life, or enabling the movement of people and goods.

Long-term financing is an important driver of sustainable economic development, helping economies advance structural transformation (box 1.1), promote infrastructure development, and fund budgetary support.

The pursuit of structural transformation often involves broad-based shifts in labor and other resources from agriculture, natural resources, or other primary sectors to more diversified advanced industrialized economies. Long-term investment is required for structural transformation in form of technology exchange and the reallocations of the resources (WHO 2008; Buera and Kaboski 2008).

Infrastructure development is another important driver that encourages long-term investments on a broad front, and, in turn, enhances growth[7]. Infrastructure is the backbone of exchange and mobility. It underpins economic activity and provides essential services that exert favorable effects on people's quality of life and the operation of firms. Infrastructure investments are generally found to have a significantly positive impact on long-term growth and a negative impact on income inequality (Calderón and Servén 2014). The economic empowerment of emerging markets, for example, depends on their ability to develop modern infrastructure.

Long-term financing is also needed by governments for budgetary support. Low- and middle-income countries traditionally rely on international development aid to respond to their development needs. For decades, the international community has provided resources in the form of project aid. This type of aid instrument can be donor-driven, with activities that deliver short-term results that cannot be sustained after development partners cease their funding (Faust and Messner 2007). Since the late 1990s, dissatisfaction with the effectiveness of classical project aid instruments has prompted some major development partners and donors such as the World Bank and the European Union to provide increased assistance through budget support.

In contrast to project aid, budget support targets delivery of results in a longer-term horizon and concentrates on outcomes rather than outputs, including the implementation of macroeconomic reforms and poverty reduction strategies. Funds provided through budget support are disbursed through the recipient government's own financial management system—the national Treasury, the ministry of finance, or their equivalent—and managed in accordance with the recipient government's overall policies, national priorities, and budgetary procedures, thereby enhancing the sustainability of the results of the support.

Due to its long-term nature, budget support has been accompanied by a focus on the importance of trust, accountability, and good governance in the recipient's public financial management. This has been referred to as fiduciary conditionality, upon which the initial release of funding and the release of subsequent installments are made.

[6]The G-30 (2013) report stated that there is no precise time horizon for long-term investment, where these investments would be in assets that have a use over many years (specifically, investment in residential real estate, commercial real estate and other structures, equipment and software, infrastructure, education, and research and development).

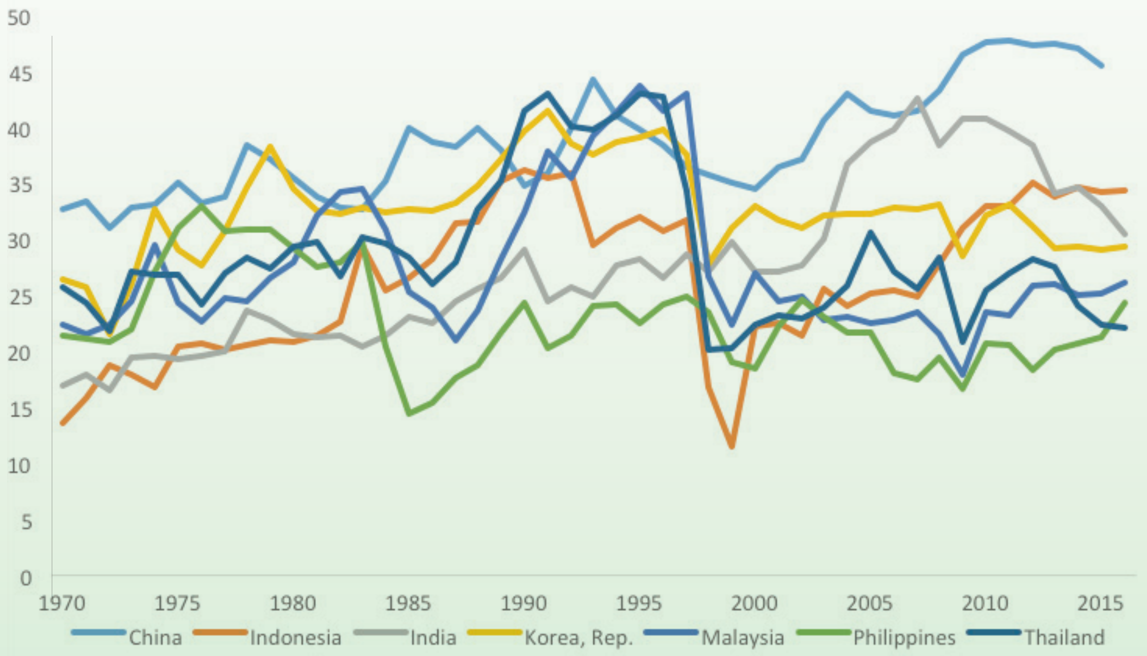
[7]Infrastructure investments have distinctive characteristics. They are often large and indivisible, require significant upfront outlays, and often stretch to long durations of 15 years or more, delaying the realization of profits. This is true for both economic and social infrastructure. Economic infrastructure includes roads, railways, and other physical building blocks, while social infrastructure includes such fundamental areas as health care and education (Chan et al. 2009).

Box 1.1 Long-term Investment and Structural Transformation in the Asia-Pacific Region

One of the key elements of the remarkable structural transformation in a number of countries in the Asia-Pacific region after World War II has been their ability to sustain high rates of long-term investment (figure B1.1.1). Since the 1970s, these economies have transitioned from low-income countries that were predominantly agrarian or producers of primary products to relatively high-income countries, on the back of strong long-term investments. China, for example, was classified as a low-income country until 1999, while the Republic of Korea, classified as a lower-middle-income country in 1970, transitioned to high-income status. China's growth has been associated with a rapid decline in the share of real value added in agriculture, from more than 45 percent of total value added in 1970 to less than 5 percent by 2010, and an increase of over 10 percentage points in the manufacturing and services sectors shares (Dabla-Norris et al. 2013).

Focused on productivity-enhancing structural change, Asian countries have carried out long-term investment projects including infrastructure investments such as modernizing cities; building airports and ports, rail routes, highways and subways; and establishing industrial zones and science parks as a driver of research and development (Yeung 2011). Gross capital formation has been formidable (figure B1.1.1). China's gross capital formation, as a percentage of GDP, is well above that in other countries, approaching half of GDP in recent years. Korea's path of structural transformation has been similar, resulting in a six-fold increase in its nominal per capita GDP in dollar terms. Indonesia, Malaysia, and Thailand also have outstanding records. Their nominal per capita GDP has increased 6.0, 4.5−5.0, and 3.5 times, respectively (Chandrasekhar and Ghosh 2013).

Figure B1.1.1 Gross Capital Formation in Asia-Pacific
Percent of GDP



Source: World Bank database.

1.3 A Global Perspective on the Long-term Financing Gap

Although estimates of long-term investment financing needs vary considerably and are not necessarily precise, studies conclude, unanimously, that needs are extremely large.

1.3.1 Long-term Financing for Infrastructure Investment

Over the next 15 years (2016−30), the global economy will need to invest around $90 trillion in infrastructure assets, according to estimates by the Global Infrastructure Hub. This translates into an additional investment of $3 trillion to $5 trillion in transport systems energy systems, water and sanitation, and telecommunications (Figure 1.2a). This level requires doubling the current infrastructure spending of $2 trillion to $3 trillion per year. This will require spending of an additional one percentage point of the GDP on infrastructure to which SDGs-related investment constitute around 20 percent (Figure 1.2b). The Brookings Institution's estimate is higher because it factors in the need for additional investment in infrastructure to fight climate change.

Emerging economies[8], including China, will account for 60 percent of the global infrastructure need between 2016 and 2030. This is especially the case in light of China's One Belt, One Road (OBOR) initiative, which promises more than $1 trillion in infrastructure investment in over 60 countries across Europe, Asia, and Africa over the next decade[9].

Figure 1.2 Estimated World Infrastructure Gap, 2016–2030

Figure 1.2 a

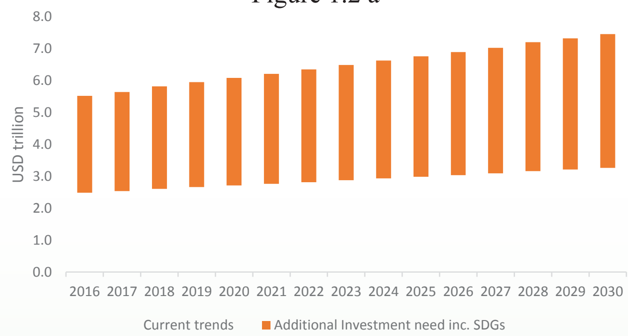
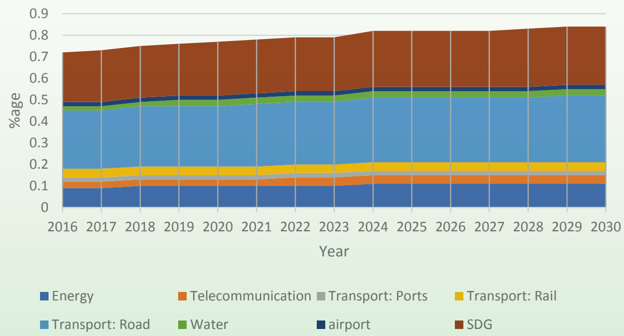


Figure 1.2 b



Source: The Global Infrastructure Hub

[8]This group includes many member countries of the Organization for Islamic Cooperation (OIC).

[9]"One Belt" refers to the Silk Road Economic Belt from China to Central and South Asia, the Middle East, and Europe. "One Road" is the twenty-first century maritime Silk Road, from Southeast Asia to the Middle East, Africa, and Europe, which will call for the construction of ports and maritime facilities from the Pacific Ocean to the Baltic Sea.

1.3.2 Long-term Financing for Firm-level Private Investments

At the firm level, long-term financing is generally used to acquire fixed assets, equipment, and the like. Empirical evidence suggests that the use of long-term finance is associated with better firm performance. However, access to long-term financing was significantly constrained after the global financial crisis (GFC) of 2007–09. While the impact varied across high-income, middle-income, and low-income countries, small and medium enterprises (SMEs) in lower-middle- and low-income countries were hardest hit. Only 66 percent of small firms and 78 percent of medium-size firms in developing countries have any long-term liabilities, compared with 80 percent and 92 percent in high-income countries, respectively. On average, the ratio of long-term debt to GDP in developing countries is only one-quarter of its high-income counterpart (figure 1.3) (World Bank 2015). Lack of long-term finance exposes deserving firms to rollover risks, which may in turn dissuade longer-term fixed investments, with adverse effects on economic growth and welfare. The World Bank Group estimates a funding gap of $2.1 trillion to$2.6 trillion for micro, small and medium enterprises (MSMEs), globally (map 1.2). If not addressed, this could stifle growth and affect shared prosperity in economies around the world.

1.3.3 Long-term Financing for Government Budgetary Support

As noted, the gap between the annual investment needs of the Sustainable Development Goals (SDG) versus current annual investments is huge. In the area of health alone, to meet 16 SDG health targets in 67 low- and middle-income countries by 2030, as much as $371 billion is required each year in investments in building and operating new clinics, hospitals, and laboratories, and in acquiring medical equipment, among other health system investments (Stenberg et al. 2017).

To meet the investment needs of the SDGs, the United Nations has announced the launch of a new platform for blended finance (public-private partnerships) (UN 2016).

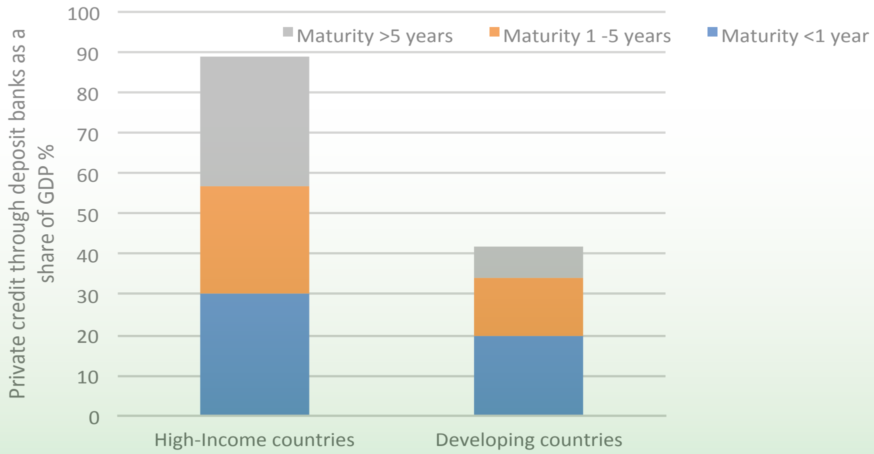
1.4 Needs and Role of Private Sector, Government Sector, and Voluntary Sector in Generating Long-term Finance

Given that the total global saving rate is 25 percent of global GDP of $75.6 trillion (according to World Bank estimates for 2016), there should be $18.9 trillion worth of annual savings available to fund investment. This is just the flow of funds available. At the stock level, with global financial assets at roughly three times global GDP, there should be at least $220 trillion worth of financial assets that could be diversified toward meeting the investment gap. The real issue is therefore the need for better resource allocation policy and incentives to encourage resource mobilization from a variety of sources and the effective use of financing. For example, more than $10 trillion is invested in negative interest rate bonds, $24.4 trillion in low-yield government securities, and $8 trillion is sitting in cash, waiting for better investment opportunities (World Bank 2017a).

A point in case is that despite the slowing growth worldwide, there is still ample global savings, both in terms of flows and stock. The perceived shortage of long-term funding is therefore, arguably, due to inadequate policy attention and incentives in creating the context, products, and institutions to channel savings to long-term financing. Filling the gap in long-term investment financing also requires strong cooperation among all relevant stakeholders across the public, private, and nonprofit, voluntary sectors and better distribution among countries that need long-term finance.

The public sector has been a key player in long-term investment, providing on average one-third of its financings in the form of public services in health, education, and safety nets, among other social infrastructure, as well as direct investments into physical infrastructure through fiscal resources or bond funding (World Bank 2015). However, the share of the public sector in long-term investments has been decreasing for over two decades as the private sector has found more room to engage with long-term investment. Even so, governments currently fund over half of infrastructure investments (G-30 2013). In the wake of the global financial crisis, governments are struggling to manage their fiscal burdens,

Figure 1.3 Debt Maturity by Country Income Group, 1999–2012

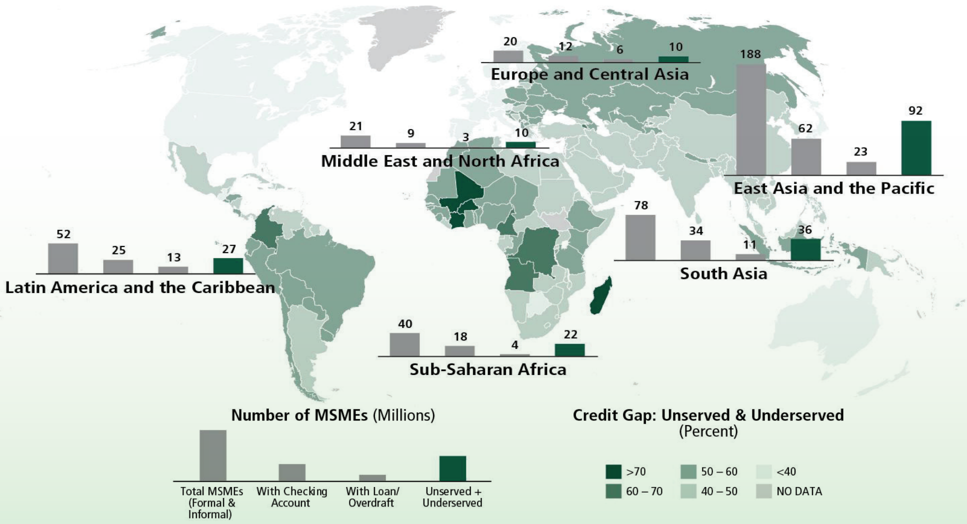


Source: Bankscope (database), Bereau van Dijk, Brussels, http://www.bvdinfo.com/en-gb/products/company-information.international/bankscope.
Note: The ratio of private credit to gross domestic product (GDP) and the maturity distribution are averaged over those years when information for both is available. Figures are averages.

with direct impact on their future funding capacity. Given the weakness of economic recovery to date, a long fiscal consolidation is anticipated (World Bank 2017b). Figure 1.4 shows that the stock of public capital, a proxy for government investment, declined as a share of output in high income countries as group between 2009-16 as a response to the crisis.

Even if fiscal conditions in developed and emerging economies improve, the need introduced by the long-term financing gap is unlikely to be met from public sector alone. Private sector capital must be mobilized to fill these gaps. This includes the multiple sources of private capital, such as private firms, banks, and institutional investors, as well as financial instruments, such as bonds, sukūk, and equities (World Bank 2015). The private sector is already a

Map 1.2 Total Financing Gap for Formal and Informal Enterprises



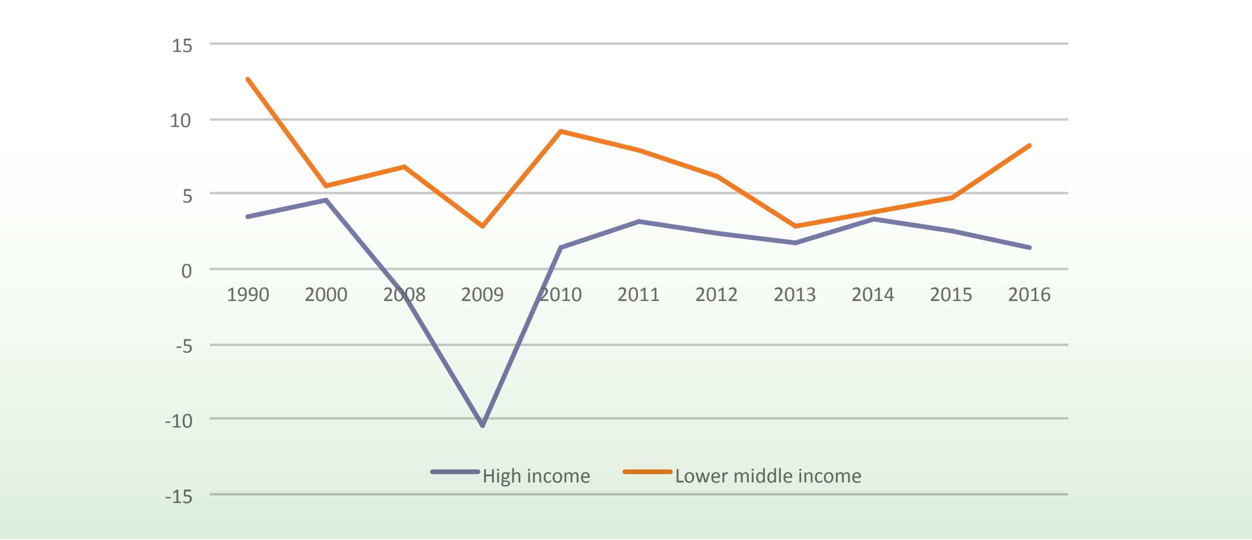
Source: International Finance Corporation (IFC) Enterprise Finance Gap Database, 2011.
Note: MSMEs = micro, small, and medium enterprises.

critical stakeholder in generating long-term finance through its investments in new technologies, new infrastructure, and production facilities. Beginning in the 1990s, there has been a rapid shift from public to private provision of long-term financing, fueled by an expanding pipeline of investable projects, government search for alternative funding sources, and inefficiencies of state-owned enterprises. Investment flows, however, peaked in 1997, partly due to instability in the policy and investment climate, attributed mainly to pricing issues (IFC 2011). This, in turn, highlights another catalytic role for the public sector in generating long-term financing: that of maintaining an enabling environment for private sector participation through appropriate regulation, rule of law, and institutions. In the absence of these conditions, adverse distributional impact may arise from rent-seeking private activity.

Last but not least is the role of the voluntary sector, which is a privately initiated sector that provides social goods and works in parallel to the government public sector, and which plays an increasingly significant role in improving societies, economies, and environmental quality around the world. This role gains extra momentum in times of distress, such as the global financial crisis and the current humanitarian crisis. As a nonprofit sector, it shares governments' interest in public benefit and has had a growing role in the delivery and provision of public goods and services, such as health and education. This has been achieved by establishing platforms that meet the needs of communities and societies, especially those at the margin, and strive for their empowerment. The voluntary sector does not engage in much direct long-term financing per se (with the exception of some major donors such as the Gates Foundation). Voluntary organizations can often be very small on their own. Together, however, they command sizeable assets with huge transformative potential. To mobilize these resources efficiently requires innovation and an enabling public sector. Notwithstanding this, the voluntary sector's active participation in civil society is instrumental in building trust and social capital within and across borders. This sense of solidarity is prominent in Islam. The holy Qur'ān prescribes institutions and rules of social and personal behavior, compliance with which guarantees social solidarity. Examples include zakāt, ṣadaqāt, and awqāf.

No sector can act alone. The policies of the public, private, and voluntary sectors must be coherent and complement one another to create a sustainable impact.

Figure 1.4 Declining Long-term Government Investments
General government gross fixed capital formation as a percent of GDP



Source: OECD; McKinsey Global Institute analysis.

1.5 Key Impediments in Mobilizing Financing for Long-term Investments

Despite the huge need, the growth of long-term financing has been slow. The G-30 (2013) report suggests that four key principles are necessary for an ideal market for long-term financing.

- The financial system should channel savings from households and corporations into an adequate supply of financing with long maturities to meet the growing investment needs of the real economy.
- Long-term finance should be supplied by entities with committed long-term horizons.
- A broad spectrum of financial instruments should be available to support long-term investment.
- An efficient global financial system should promote economic growth through stable cross-border flows of long-term finance, supported by appropriate global regulation.

The 2007–09 global financial crisis exposed the flaws in finance theory, particularly regarding the use of derivatives and hybrid products, and the need to revisit some conceptual frameworks. The crisis highlighted that the global financial system was imbalanced due to three fundamental sources of vulnerability (Lewis 2010):

- *Interconnection,* whereby financial actors get into transactions that generate a set of interconnected obligations by linking the commitments of various parties. This phenomenon expands as a result of the rise in popularity of securitized and structured products. Interconnection among financial institutions enables a shock to spread all across the financial system and amplifies its effects.
- *Leverage (debt/equity mismatch),* whereby the borrower does not have sufficient equity to cushion himself against sudden shocks. Excess leverage exposes the borrower to both liquidity and solvency crises because rises in interest rates can very quickly "decapitalize" borrowers if they are forced to sell assets at "fire sale" rates in order to meet contractual payments. This vulnerability eventually turns into the deterioration in credit underwriting standards and credit quality.
- *Maturity mismatch,* whereby borrowers tend to use short-term debt to invest in long-term assets. This creates risks of illiquidity when they do not have sufficient cash flow to meet interest and principal repayments as per contractual obligations. This mismatch exacerbates while attractiveness of short-term funding facilities such as repos increases.

The mobilization of funding for long-term investments is faced with a number of impediments on both the systemic level and through the usual demand and supply factors. At the heart of the gap between these forces is a collective action trap, in which individual actors and stakeholders do not work collectively to solve the funding of global public goods. The discussion that follows examines some of the other key issues, which are common in both developed and emerging markets, albeit at varying degrees.

1.5.1 Systemic Factors

Leveraging and Incentives for Risk Transfer

The financial sectors in most of the developed economies have expanded significantly in comparison with the real sectors since the global financial crisis, with little connection to the value of real assets, because of the attractiveness and convenience of increasing leverage globally (Dabla-Norris et al. 2015). Consequently, the expansion and profitability of the financial sector beyond its traditional role of intermediation (matching savings and investment) is at the expense of the other economic sectors and is harmful to the broader economy. Among the most notable adverse consequences of the trend toward financialization are increasing inequality, a tenuous relationship between financing and real sector investment, a drop in fixed capital investment in the nonfinancial sectors of the economy, and a diversion of financial resources into a "gambling casino," as John Maynard Keynes (1936) called it, which has ultimately intensified speculation and undermined stability.

The systemic challenge is further exacerbated where the supply of providers of long-term finance is limited. With the exception of the United States, Europe, Japan, and most emerging markets aredominated by banks (figure 1.5)[10]. The banking sector faces a natural maturity mismatch between its assets and liabilities. The bulk of its liabilities are in the form of deposits with a maturity of less than one year.

Furthermore, new standards and regulations (such as the Basel Accords) reinforce the bias toward low-risk, liquid, short-term assets. As a result, banks are more regulated to maintain higher liquidity and capital buffers, thus constraining their ability to take long-term positions. Furthermore, investment restrictions limit the participation of pension funds, sovereign wealth funds, insurance companies, endowments, and other institutional investors that are otherwise well-suited to provide long-term financing. This then raises questions about the sustainability of provision of long-term financing.

To meet the growing investment needs of the real economy, long-term finance should be supplied by entities with committed long-term horizons. However, existing governance models, compensation schemes, and performance measures that focus on quarterly and yearly returns unintentionally promote investors' short-termism to the detriment of long-term finance. Due to short-termism, investors do not seek long-term investments, focusing instead on short horizon investments with immediate returns. Investor short-termism causes firms to leave profitable opportunities on the table or meet these opportunities by overleveraging (Fried and Wang 2017).

The easy and cheap access to credit further fuel the demand to search for yield, resulting in overleveraging in both the real and financial sectors. In 2013, the Focusing Capital on the Long Term Initiative, founded by the Canadian Pension Plan Investment Board and McKinsey & Company, started a project that tried to reverse the trend for short-termism. The report notes that "savers are missing out on potential returns because stock markets are penalizing companies that make long-term investments. Society is missing out on long-term growth and innovation because of underinvestment" (FCIT 2014). Short-termism is a problem in UK equity markets, the Kay report commissioned by the UK Secretary of State for Business, Innovation and Skills (2012) concludes. The report identifies the principal causes as the decline of trust and the misalignment of incentives throughout the equity investment chain.

The aging demographic is adding further pressure to the future supply of long-term finance in some parts of the world, such as Australia, Europe, Japan, the Republic of Korea, and the United States. Aging investors are shifting their portfolios out of equities and other long-term instruments toward deposits, fixed income instruments, and other lower-risk assets (G-30 2013)[11].

1.5.2 Demand Factors

Resource mobilization and the demand for long-term investment financing are impeded by the availability of financially viable long-term projects, political myopia, macroeconomic instabilities, and high entry barriers, among other factors.

Financial Viability

The existence of a robust pipeline of investable long-term projects is a necessary precondition for the demand of matching finance. Investability is a function of profitability and riskiness, both independently and with respect to other projects.

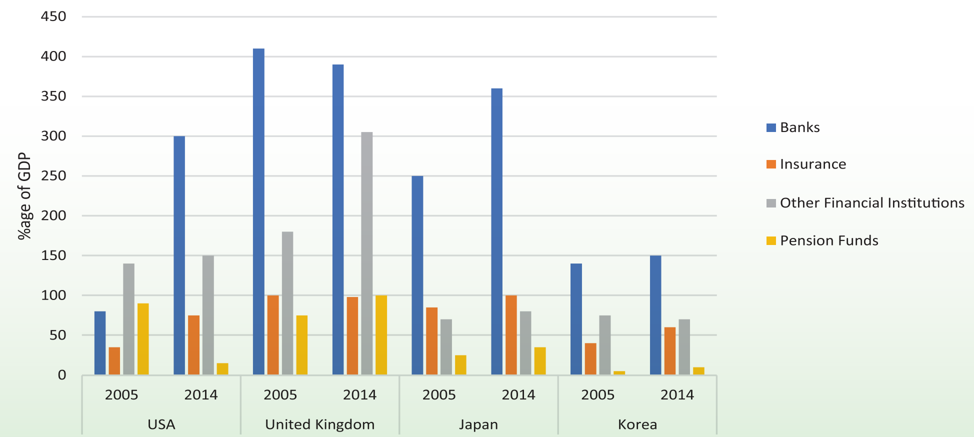
A recent working paper by IMF staff projected the economic returns of investments in schools and roads to be 25 percent and 40 percent in annual terms, respectively (Atolia et al. 2017). Aside from economic returns, long-term investments often generate positive externalities, so their social return exceeds the private returns generated for the operator. Unlike economic returns, however, social returns are generally more difficult to quantify and often exceed private returns. As a result, long-term investments often lack financial viability from the perspective of private investors or financiers, despite their high socioeconomic rates of return, as expected revenues fall short of project costs. Closing the gap between the two calls for accommodative public provisions pertaining to existing tariffs and legislative and institutional reforms in favor of greater private participation, including mechanisms to adjust tariffs. Governments can also consider supplementing returns annually by some portion of the social return to make the investment more attractive and reduce the public financial burden, if the public sector were to undertake it. Furthermore, the design of economically rational financing structures is crucial to ensure a distribution of risks and returns that is incentive-compatible[12].

Political Myopia

Political leaders' planning horizon is arguably inextricably linked to resource allocation. The greater the political myopia, the shorter the policy makers' time horizon and therefore the greater the incentives to limit investments with benefits that accrue in the long run[13]. In this case, investments with more vis-

[10]Generally, emerging markets have under-developed corporate bond, securitization, and equity markets.

Figure 1.5 Relative Size of Financial Intermediaries, Selected Countries



Source: IMF 2016b, based on Haver Analytics; European Central Bank Statistical Data Warehouse;and IMF staff calculations.

ible returns in the short term are preferred, in order to gain electoral advantage (Atolia et al. 2017; World Bank 2015). For a proposal of a system of public investment appraisal that is apt for sustainable development and long-term inclusive growth, see Ahmad (2017).

Macroeconomic Instability

A stable macroeconomic environment is a necessary condition for long-term investments. It reduces uncertainty and boosts investors' interest, on the back of enhanced ability to predict risks and returns (World Bank 2015). Macroeconomic instabilities, on the other hand, undermine the economic value and profitability of long-term investment projects. Since the crisis, uncertainty about future economic prospects has weakened demand for long-term financing and shortened investment horizons[14]. Shorter maturities are often perceived as the optimal response to macroeconomic instabilities. This is especially the case in environments characterized by high inflationary pressures, which may significantly increase projected costs and cash flows, thereby deterring long-term investment undertakings. Lack of clarity around tax exemptions and sudden changes in the tax system over the life of long-term projects are also important factors that could reduce the appetite of long-term investors and project planners. The unpredictability of regulatory/policy changes can further distort incentives, where a multitude of regulatory agencies are involved and multiple governmental approvals, permits, or licenses are required to start and maintain a project[15].

High Entry Barriers

A range of factors often influence the degree of ease of entry to a market, including sunk costs and/or economies of scale; cost advantages conferred by incumbency; structural factors specific to a market, including vertical integration or regulatory requirements (such as environmental and safety regulation); and the nature of competition in the market. Many long-term investments are natural monopolies. The sheer size of these large-scale projects has often been a barrier for governments and private sector alike.

The IRSG research paper on Long-term Finance for Infrastructure and Growth Companies in Europe (2015) argues that "there is no shortage of money to finance infrastructure, but there are obstacles in the way of the efficient allocation of capital to infrastructure projects." This can be true for all forms of long-term investments. In addition to the impact of ongoing fiscal consolidation, the supply of long-term investment financing is essentially constrained

[11]The opposite demographic trend is present in most of the emerging economies and members of the OIC countries, which are characterized by young populations. Moreover, Islamic rules of redistribution and law of inheritance emphasize intergenerational transfers, counteracting any similar impact for aging Muslim populations.

by the lack of adequate risk assessment frameworks, weak legal and institutional frameworks, illiquidity, and investors' short-termism, which are effectively "obstacles in the way of the efficient allocation of capital."

Fiscal Consolidation

The supply of long-term finance is further constrained amidst falling commodity prices and an economic crisis that continues in the aftermath of the global financial crisis and increasingly challenges governments' ability to fund long-term investments. In particular, the heavy burden of public debt threatens fiscal sustainability and necessitates consolidation that may translate into lower long-term public investments in the near future. New sources of funds need to be mobilized to fill the inevitable gap (G-30 2013).

1.5.3 Supply Factors

Inadequate Risk Assessment Frameworks

Long-term investments are subject to a myriad of risks at every stage of their economic life (Bhattacharya, Romani, and Stern 2012). These include macroeconomic, political, and regulatory risks[16], which dominate the planning, construction, operation, and the transfer/handover stages. There are also risks specific to stages of the investment, such as construction risks, completion/commissioning risks, and operational risks (WEF 2016). Different stakeholders have different risk appetites (Canuto and Liaplina 2017). It is therefore essential to work out what the risks are at the start of the project and which parties are best able to take on these risks, and to structure financing vehicles accordingly. Devising different financing instruments for different phases of long-term finance may also be useful, especially because risk assessment becomes more complicated the longer the horizon. Precise prediction is difficult. If not dissuaded from investing at all, financiers may require a premium as a compensation for the higher perceived risk exposure.

Weak Legal and Institutional Framework

The web of contracts between the various stakeholders in long-term investments, such as governments, project sponsors, financiers, construction contractors, and facilities managers, brings a myriad of legal and institutional considerations to the forefront. These include information asymmetries and the associated moral hazard and agency problems, property rights protection, contract enforcement, dispute resolution, and bankruptcy and insolvency laws. Strong institutions, robust governance, and a sound legal environment are even more critical in light of imperfect contracts that fail to precisely capture the full spectrum of future contingencies over the economic life of long-term investments[17]. As a result, investors are willing to commit large sums of financing at long horizons only if they can trust the legal and institutional framework. In general, empirical research lends support to the argument that weak institutions and poor property rights systems result in shorter maturities for finance and investments. A case in point is the cross-country variation in loan maturity. Commercial banks in emerging economies extend loans for maturities of only 2.8 years, on average, whereas their counterparts in developed economies have an average loan maturity of 4.2 years (World Bank 2015). Acemoglu, Johnson, and Robinson (2005) show how institutions shape long-term economic outcomes and determine economic agents' incentives and constraints.

Illiquidity

Long-term investments are disadvantaged by their inherent illiquidity. Long-term investments require the fund allocation with lengthy time horizons extending to years. Theoretically, long-term investors are subjected to wait a long time to retrieve their principal. However, financial markets provide the opportunity to liquidate portfolio holdings to investors. In this regard, the efficiency of financial markets facilitates fund mobilization to long-term investments by alleviating the inbuilt illiquidity of long-term investments. In the absence of secondary markets or reasonably timed exit channels, uncertainty reinforces economic agents' preference for liquidity (Allen and Gale 2009). Because liquidity is given a premium, the supply of long-term finance is likely to become scarcer.

Restrictive Lending Environment

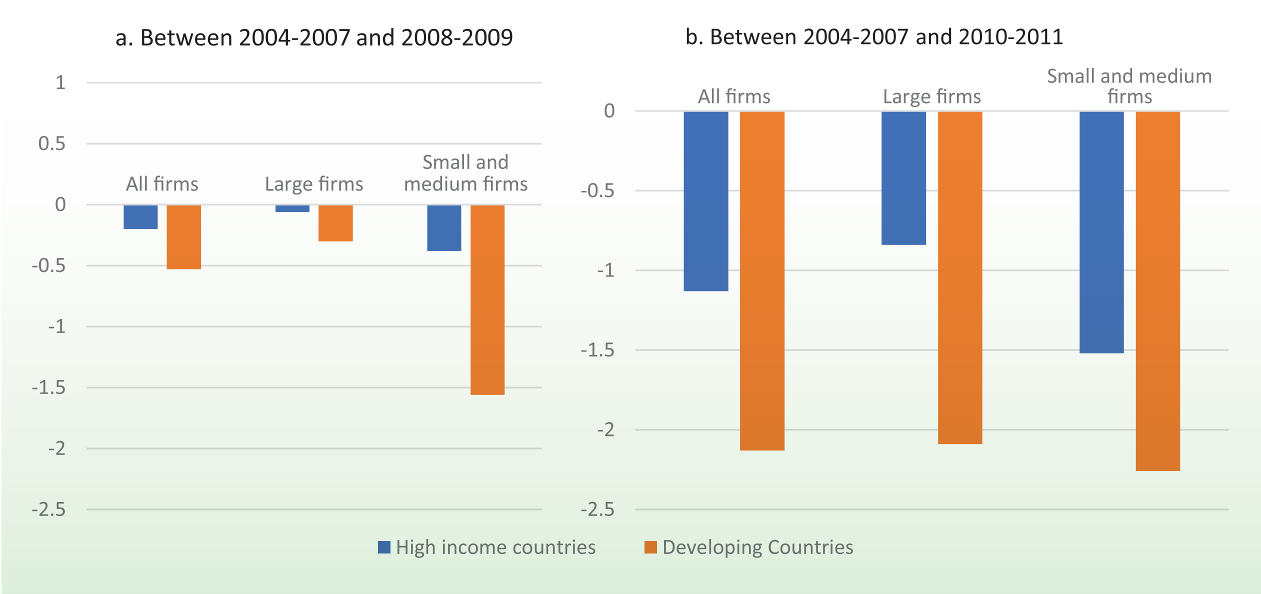
In the aftermath of the global financial crisis, new

[12] A contract is incentive-compatible if every participant is motivated to act according to the rules that serve the interests of the collectivity.
[13] An altruistic social planner, on the other hand, is expected to have an infinite time horizon.
[14] Periods of macroeconomic and financial instability can result in a deleveraging of firms and can widely disrupt long-term investments in both high-income and developing countries, Demirgüç-Kunt, Martínez Pería, and Tressel (2015) show.
[15] These may include environmental permits and permits to own property in the case of a foreign investor.

regulations are contributing to a more restrictive lending environment that is proving to be especially taxing on long-term finance. Global regulations have tripled in four years from roughly 14,200 rulings and changes in 2011 to 51,600 daily regulatory changes, according to the Boston Consulting Group (BCG 2017). These include every new local, national, or international policy, ruling, reform, action, law, ban, comment, announcement, publication, or speech that any compliance department of a bank may be expected to note and monitor. Given the heavy sanctions on breaches, banks and financial institutions have become more cautious in both lending and investment, especially for the long term (figure 1.6). This caution is part of an ongoing derisking and deleveraging in the banking industry in response to market and regulatory demands for liquidity and a higher quality capital, which have increased the risk weights on long-term lending and funding.

Basel III, for example, "raises the cost of issuing long-term corporate and project finance loans above the cost of issuing mortgages and short-term loans." By and large, the consensus is that the Basel rules, including higher capital ratios, the Liquidity Coverage Ratio, and the Net Stable Funding Ratio, will force banks to increase capital for project and long-term loans, probably on the order of 60 to 110 basis points (Ma 2016). "This is not to argue for a reversal of the new capital regime, but to call for the emergence of new sustainable sources of finance beyond bank lending," the G-30 argues (2013, 15).

Figure 1.6 Change in Debt Maturity since the GFC by Country Income Group and Firm Size



Source: World Bank 2015.

Note: Developing countries low-and middle-income countries. Firm size is defined based on the number of employees. Leverage and long-term debt values are saimple averages for firms within indiviual countries, averaged across countries in each income group. The differences reported subtract the earlier period values from later period values. In panels c and d, firms with zero long-term debt before the crisis period were excluded from the sample in calculating the averages.

[16]Changes in the regulatory environment may affect the pricing and operations of long-term assets.

1.6 Sustainability in Long-term Investment Financing

Sustainability is critical to long-term financing and investment. While the need and role of long-term financing has been well recognized, little attention has been paid to the risks and pitfalls of current financing modes.

1.6.1 A Critique of the Status Quo

Current economic development models for the sustainable development heavily rely on leverage and liquidity in the financial markets. However, both these factors contribute negatively to the provision of long-term funding because of the higher uncertainty associated with the long-term contracts and the procyclical nature of credit markets. Financial markets expand and contract with economic cycles. During economic downturns, the nexus of leverage and liquidity undermine the potential for growth by restricting the supply of funds at precisely the period when there is a greater need for investment to stimulate the economy.

One of the major reasons for the prevalence of leverage-based risk-transfer instruments is the set of market imperfections leading to ex ante adverse selection and ex post moral hazard of the borrower. The presence of such market imperfections creates a consistent rift between the borrower and the lender. In a debt contract, the lender attempts to address the agency problem by requiring collateral and charging a risk premium to compensate lenders for the default of the borrower. However, in the event of default, the lender still pushes for recovery from the borrower and restricts further lending. In such a scenario, any of the potential causes of distress in the financial system may perpetuate a vicious cycle of defaults and crisis due to borrowing restrictions and liquidity constraints. There is mounting evidence suggesting that interest-bearing debt and leveraged balance sheets pose systemic problems and can potentially undermine sustainability (Reinhart and Rogoff 2010; Arcand, Berkes, and Panizza 2012).

Hart and Moore (1994, 1998) analyze the relationship between an investor and entrepreneur for a debt contract and find that debt contracts are optimal incomplete contracts with a high hold-up cost (commitment cost). Under the assumptions of an incomplete contract, the entrepreneur and investors have opposing incentives as to control of ownership of the firm (collateral). In case of the bad performance of the venture, the entrepreneur has the incentive to stop repayment and transfer ownership to the investor to liquidate the collateral. This also implies that an entrepreneur cannot credibly promise all the future returns as repayments to the investor because the entrepreneur can divert cash from the project (Hart and Moore 1998) or may withdraw his or her essential human capital from the project (Hart and Moore 1994). In this view, the physical assets offered as collateral can discipline the entrepreneur until the value of the collateral exceeds the loan amount; at that point, collateral is transferred to the investor.

One of the important elements in the collateral and risk premium argument is the selfish motives of the lender for the recovery of the loan principle and interest without regard to the fate of the venture. This creates distrust among the parties, enhances individual risk aversion, and discourages investment for long- term projects. Taleb (2008) regarded the higher amount of equity as a necessary condition to control unexpected risks, which he referred to as black swans[18]. However, the problem with the debt contract is that lenders provide debt, not equity. Regarding risks, the only possible risk that any lender assumes is the credit risk, but that too is routed back to the borrower by requiring collateral and charging a default risk premium. Debt essentially transfers the risk of losses from the providers to the users of funds, distorts economic incentives, and decouples financial returns from real economic returns (Askari et al. 2012). The ability to transfer risk mars most existing long-term financing structures.

Given the pitfalls of risk transfer, the question then arises as to why leverage is so prevalent. The answer is the incentive structure built in the debt contract for the contracting parties. One element increasing inertia is the set of myths that surround risk transfer. A central one is that the risk-transfer regime is less costly, more secure, and more certain. The global financial crisis helped weaken the last two arguments. As to the cost factor, the costs of the risk-transfer regime are hugely underestimated, especially at the system-wide level. To enforce debt contracts, governments must establish a huge legal, administra-

[17]Under such conditions, financiers opt for short-term contracts as a protection against the risk of nonpayment. They force fund users to roll over financing constantly. The threat of withholding future funds is basically used as a disciplinary device (World Bank 2015).

tive, and enforcement infrastructure to ensure that contracts are not violated (Djankov et al. 2008). Besides these costs, the negotiation cost of rollover and restructuring of the debt contract is not taken into account in the claim that the risk-transfer regime is low cost.

The natural question arises then as to whether there are viable alternatives to the model based on risk transfer that could reduce the systemic risk and moral hazards associated with risk-transfer model.

1.6.2 Risk-sharing Long-term Finance: A Viable Alternative?

A fundamental difference between Taleb's (2008) line of thinking and conventional debt finance models—such as the value-at-risk (VAR) models, efficient market hypothesis (EMH), and capital asset pricing model (CAPM)—is that conventional models take a partial view of risk relationships, whereas Taleb's view is systemic. The current generation of finance theory models assumes that with more-or-less perfect information, it is possible to identify risks and hedge against them. On the other hand, the systemic view is that there are uncertainties that are unknown and that could be endogenous to the system, rather than exogenous. That difference provides a certain amount of humility as to the ability to control risks, requiring the building up of long-term equity or funding to absorb such unknown shocks. A player that thinks systemically looks at the system organically, rather than mechanically, recognizing that the system must adapt itself to the changing context and environment from both endogenous and exogenous sources of change.

A number of other studies have offered fundamental insights into the theory of contracts. Bowles (2013) emphasizes that contracts that share risks have characteristics that mitigate the risk of violations of contracts related to the agency conflict. Gintis (2002) argues that the self-interested "rational" actor (Homo economicus) depicted in neoclassical economics is one of the types of human subject engaged in strategic interactions. On the other extreme of Homo economicus, Gintis posits Homo reciprocans, who exhibits strong reciprocity and a propensity to cooperate and share with others, even when there are no plausible future rewards or benefits from that behavior. This reciprocal approach emphasizes mutuality, commitment ("skin in the game"), incentives to focus on the common good of contract participants, and horizontal governance, which is self-enforcing (in contrast to the top-down governance of risk-transfer contracts).

Risk-sharing financing attempts to meet the challenges associated with the risk transfer. The risk-sharing mechanism has the potential to create a culture of trust, increase investment (by funding projects that are rationed out of risk-transfer markets), reduce individual risk aversion through collective risk taking, and increase financial inclusion, as Samuel Bowles argues in his 2013 book, The New Economics of Inequality and Redistribution. All these advantages increase x-efficiency[19] in the economy, which is the ability to get the maximum output from the inputs (Leibeinstein 1966), leading to expanded productivity.

"[R]isk sharing finance is more congruent with the riskiness of economic activities under uncertainty," Maghrabi and Mirakhor (2015) contend. It can provide the necessary financing without the need to take on excessive leverage, which could in turn help stabilize government spending and reduce debt servicing pressures. Unlike risk-transfer, debt-based modes of finance that effectively detach liability (ghurm) from the right to profit (ghunm), risk-sharing instruments of finance are state-contingent. Their payoffs depend upon the outcome of economic activities (Mirakhor 2011). Acquiring sustainable long-term financing is, thus, arguably more optimal using risk-sharing-based contracts that match the risk and time horizons of investment opportunities with the risk and time horizons of fund providers. Liquidity in terms of the availability of secondary markets is crucial.

Conceptually, therefore, a risk-sharing system is likely to be more resilient and shock-absorbent than a risk-transfer-based debt system. Rafi and Mirakhor (2017) enumerate the benefits of risk-sharing-based finance compared to risk-transfer-based debt systems.

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[18]Taleb discusses in his book (2007) that unexpected events which are considered extreme outliers play significantly larger roles than regular occurrences. Thus, any analysis omitting outliers lacks substantial portion of information. This idea has implications on finance as well as history, science, and technology. In finance, Taleb's Black Swan Theory is ackowledged in the discussion of tail risks. A conservative approach to leverage, i.e. strong equity capital, may limit the probability of tail risks.

While equity is the first best instrument of risk sharing, it is not the only one. Parties can share risks in accordance with each party's ability to bear risk through a number of different contracts, such as leasing, options, and other derivatives or hybrid instruments. Box 1.2 discusses equity funding practices.

1.7 Theoretical Framework for Acquiring Long-term Investment: An Islamic Finance Perspective

The vision of Islamic finance is to offer itself as a source of stability against the plight of overleverage and short-termism in the current global financial system. Islamic finance has the potential to reduce the fragility and volatility of the financial system in a convincing manner because of its unique and distinctive features of risk sharing and close link between the real and financial sectors (materiality).

Islam has long endorsed risk sharing as the preferred organizational structure for all economic and financial activities. On the one hand, Islam prohibits—without any exceptions—explicit and implicit interest-based contracts. On the other hand, it lauds risk sharing in all its forms as the structure for economic and financial activity. It goes even further to require mandatory risk sharing with the poor, the deprived, and the handicapped based on its principles of property rights, which specify an irrevocable right for the less able to share in the income and wealth of the more able, as the latter use more resources to which all are entitled.

The emphasis on risk sharing is evident from the verses in the holy Qur'ān regarding economic and financial undertaking. Verse 2:275 states that "they say that indeed al-bay' [an exchange contract] is like al-ribā [an interest-based debt contract]. But Allah has permitted al-bay' and has forbidden al-ribā." From this verse flows major implications for the operation of Islamic economy and Islamic finance. One of these implications relates to the nature of these two contracts. Etymologically, the first—al-bay'—is a contract of exchange of one bundle of property rights for another bundle of property rights, in which parties share the risks of exchange. In the

Box 1.2 Equity Funding in Practice

Conventional debt-based banking works on the basis of identifying risks and hedging against such risks. Debt contracts operate on trust and require constant monitoring (and disclosure) of borrowers and/or enforcements to minimize default risk. But recent experience with Silicon Valley firms has introduced new forms of equity funding for start-ups, where there is little experience with the product, process, or platform, let alone the trustworthiness of the operators.

Silicon Valley investors take a graduated and portfolio approach to investment in start-ups. The investment in start-ups begins with a portfolio approach. A portfolio of many start-ups is built up on the theory that the investor does not know which and how many will fail, but that out of a reasonably large number, a few will become "unicorns," achieving market value of over $1 billion. The return on investment on these unicorns are so large that they cover any losses from investments in the failed start-ups.

To ensure success of the start-ups, the investors engage in symbiotic assistance, providing key advice on technology, business models, marketing, financing, personnel, and strategy. Investors only increase their investment when the concept moves to market testing and then actual roll-out. Through an escalating size of Series A and B investments to the ultimate initial public offering (IPO), the investors sequentially increase their stake, bring in new investors and eventually cashing out through an IPO. Investors also exercise funding discipline by cutting loss when they realize that the start-up is unlikely to succeed.

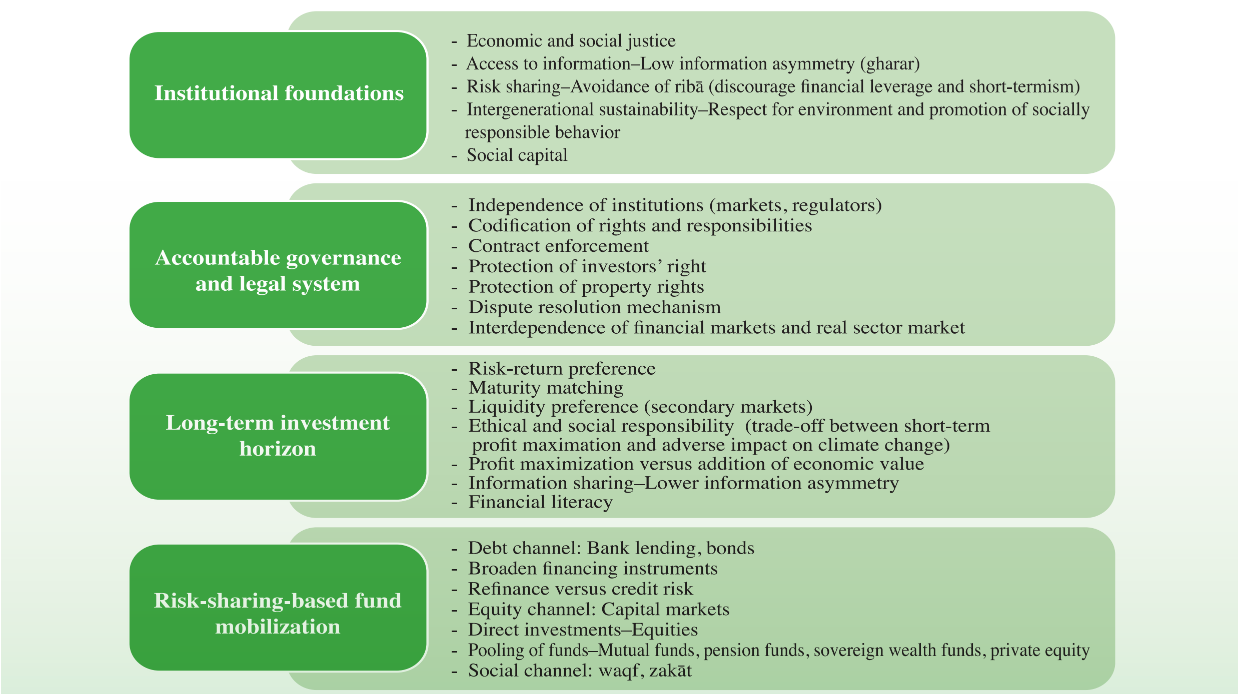
The experiences of Silicon Valley and sharp rise in private equity funds suggest that investment in long-term projects that carry uncertainties that are difficult to predict and evaluate require a graduated and disciplined process that manages the risks and uncertainties. The longer the term of the project, the greater the risks and uncertainties. This implies that in the face of projects with high risks, the investor or lender must have higher equity cushions, and the return on equity on the project should be sufficiently large to reward the lender/investor for the risks and uncertainties. On the other hand, the longer the project has been in existence, the greater the confidence that the project will be completed and the investment will pay off as expected to all classes of investors.

case of contracts involving ribā, however, a sum of money is loaned today for a larger sum in the future, effectively transferring the risk of capital loss from the lender to the borrower.

Risk transfer violates shari'ah precepts pertaining to financial undertakings, as summarized in the legal maxims "al-Ghunmu bi al-Ghurmi" (no gains without risk) and "Al-Kharaj bi adh-Dhaman," (no gains without responsibility for attendant expenses and loss) (see Dusuki 2012, 4). These precepts necessitate the inseparability of risk bearing and entitlement to gains—common in risk-transfer–based debt contracts (Laldin et al. 2013). Thus, "Islam condemns two extremes of behavior with regard to risk. The first is total risk avoidance by obtaining profits without assuming any risk, which is the case with ribā. The second is excessive risk-taking in activities that have elements of gambling" and gharar (uncertainty) (Dusuki 2012, 11). From this perspective, Islamic economics and finance offer a risk-sharing–based framework that can mobilize resources to the real sector, rather than channeling much-needed funds to the financial sector (financialization), if put into operation.

Risk sharing represents a paradigm shift, a radical reorientation of the governance structure of economic activity from a vertical (risk transfer and shifting) to a horizontal structure that creates incentives to shift the views of stakeholders from short-term gains to long-term maximization of returns. This radical shift has important consequences. The agency and information problems are mitigated because all participants have skin-in-the-game under the risk-sharing scheme. This gain in eliminating information and agency problems by the mutuality commitment becomes a source of x-efficiency in the production of goods and services. In a risk-sharing activity, the principles and values enshrined in the commitment to mutuality would make it imperative that information flow is more transparent and more broadly and equally shared than in a conventional firm while the decisions made in a risk-sharing venture are expected to have stronger general acceptability because responsibility and accountability for decisions are more equally shared. In addition, risk sharing has the potential to expand economic inclusion, allow lower income groups to become asset and wealth holders and diversify their source of income, thereby help in poverty alleviation efforts.

Figure 1.7 An Islamic Framework for Long-term Investment Finance



[19] The term "x-efficiency" describes the degree of efficiency maintained by economic agents under conditions of imperfect competition

Accordingly, if and when risk sharing paradigm becomes more generally accepted and implemented, it will allow the generation of income and wealth to become more balanced. Consequently, the interests of stakeholders are tied to the long-term profitability and sustainability of the venture and not to short-term gains. It can be concluded that an incentive structure for long-term investment is an inherent characteristic of risk sharing. This framework addresses the current shortcoming of prevalent system. It is based on four fundamental pillars, depicted in figure 1.7:

1. Institutional foundations in line with Islam's rules of behavior
2. Accountable governance and legal system
3. Long-term investment horizon
4. Risk-sharing–based fund mobilization

1.7.1 An Institutional Foundation in Line with Islam's Rules of Behavior

The objectives of Islam (maqāṣid al-sharīʿah) emphasize universal values such as protecting life, preserving property rights and the sanctity of contracts, building a more just society, protecting the rights of future generations, fostering mutuality and solidarity, and being sensitive to environmental issues. Establishing efficient institutions and an institutional framework in line with these objectives is essential in creating an enabling environment for long-term finance.

The institutional framework of the ideal economy and financial system consists of a collection of institutions: rules of conduct and their associated means of enforcement to deal with the allocation of resources and the distribution and redistribution of the resulting income and wealth. The objective of these institutions is to achieve social justice. These institutions "structure human interaction by providing an incentive structure to guide human behaviour" (North 2005, 66). Institutions like transparency, truthfulness, faithfulness to the terms and conditions of contracts, unhindered flow of information, and noninterference with the workings of the markets and the price mechanism, could effectively promote long-term cooperation and reduce high transaction costs. This can be achieved by promoting financial contracting that minimizes incentive and agency problems, which could otherwise occur in an environment of information asymmetry and weak monitoring. Consciousness and self-accountability can further internalize incentive compatibility and provide contracts a dimension of self-enforcement.

The institutional structure of the ideal Islamic economy rests on rules governing property rights, production, exchange, trust, markets, and distribution and redistribution, among others (Iqbal and Mirakhor 2011).

Sanctity of Contract

Islam places great significance on the sanctity of and commitment to contracts. Islam's strong emphasis on the strictly binding nature of contracts covers private and public contracts, as well as international treaties. Moreover, every public office in Islam is regarded as a contract: that is, an agreement that defines the rights and obligations of the parties. Every contract entered into by the believer must include a forthright intention to remain loyal to performing the obligations specified by the terms of the contract.

Social Capital

Market transactions are entrenched in a social context, where reputation and trust are of prime consideration (see Granovetter 1985). Trust is considered the most important element of social capital in Islam, which considers being trustworthy an obligatory personality trait. In the Sharīʿah, the concepts of justice, faithfulness, reward, and punishment are linked with the fulfillment of obligations incurred under the stipulations of the contract. Being trustworthy and remaining faithful to promises and contracts are absolute requirements, regardless of the costs involved or whether the other party is a friend or a foe. Risk-sharing finance is no exception. Risk sharing takes place via contracts of exchange, which places high importance on such things as social capital (Ng et al. 2015; Mirakhor and Hamid 2009; Mirakhor and Askari 2010; Mirakhor 2010, 2012). Trust, social networks, social structures, and shared norms—all components of social capital—can increase the enforceability of contracts by deterring noncompliance for fear of retaliation and loss of reputation.

Markets

The market's institutional structure is built around five pillars: property rights, the free flow of information, trust, contracts, and the right not to be harmed by others and the obligation not to harm anyone. Together, they serve to reduce uncertainty and transaction costs and enable cooperation and collective action to proceed unhindered.

Distribution and Redistribution

The most important economic institution of the Islamic economic paradigm to achieve social justice is its set of rules regarding distribution and redistribution. Distribution takes place after production and sale, when all factors of production are given what is due to them commensurate with their contribution to production, exchange, and sale of goods and services. Redistribution occurs after the distribution phase, when the charges due to the less able are levied. These expenditures are essentially repatriation and redemption of the rights of others in one's income and wealth.

1.7.2 Accountable Governance and Legal System

While institutions lay the foundation of a system, a sound legal system and an appropriate governance mechanism is needed to ensure smooth functioning of the financial system. The need is more pronounced in risk-sharing–based contracts, given the contingent nature of parties' claims and the limitation of human foresight (Askari et al. 2012; Mirakhor 2012). Sound bankruptcy laws, overall contract enforcement, and efficiency of the legal system could promote the use of long-term finance (Bae and Goyal 2009). One reason why investors prefer short-term debt is that it offers a way for creditors to monitor the prospects of an investment project, which prevents the borrower from acting irresponsibly. If the legal infrastructure is strong enough in balancing the rights of creditors and borrowers, then the need for relying on short-term investment as a disciplinary tool would decrease, which could help the development of long-term finance.

The main objective of governance is to maximize the gains of the related parties and stakeholders including investors, employees, customers, suppliers and the community within the social, legal, and market environment. Islamic finance upholds governance since the maqasid al-shariah, i.e. the attainment of good, welfare, benefits, and warding off bad, injury and loss for the individuals, is the ultimate goal. Accordingly, the governance model in the Islamic economic system is a stakeholder-oriented model where the governance structure and process at the macro and micro level protect the rights of all stakeholders. Whereas the conventional financial system struggles to find convincing arguments to justify stakeholders' participation in governance, a stakeholder model is built into Islam's principles of property rights, commitment to explicit and implicit contractual agreements, and implementation of an effective incentive system.

The design of the governance system in Islam can be best understood in light of principles governing the rights of the individual, society, and the state; the laws governing property ownership; and the framework of contracts. Islam's recognition and protection of rights is not limited to human beings but encompasses all forms of life as well as the environment. Each element of Allah (swt)'s creation has been endowed with certain rights, and each is obligated to respect and honor the rights of others (Iqbal and Mirakhor 2004).

All property ultimately belongs to the Creator, who has made all created resources available for humans, to empower them to perform what their Creator expects of them. Individuals are free to acquire and accumulate property as long as it does not violate the rights and the interests of the society and individuals. Islam prohibits the concentration of wealth and imposes limits on consumption through its rules prohibiting overspending (isrāf), waste (itlāf), and ostentatious and opulent spending (itrāf).

The principles of property rights and contracts in Islam offer theoretical foundations to acknowledge the rights of all stakeholders, Iqbal and Mirakhor (2004) argue. Islam's principles of property rights, contracts, and a just social order define the business environment where economic agents are morally conscious of protecting property rights and contractual obligations to one another, whether acting as public servants, managers, employees, suppliers, or customers, or in any other capacity. All participants in economic activities—whether individuals, firms, corporations, nonprofit organizations, or public institutions—are subject to the same degree of commitment. The notion of the sanctity of contractual obligations is not limited to explicit contracts, which are well defined, stipulated, and documented, but is equally applicable to implicit contracts, which are incomplete by nature. Property rights of all contractual parties—whether individuals, local communities, intangible legal entities, or society at large—are preserved and protected.

A financial sector with weak governance and lack of transparency is bound to lead to debt financing, market frictions, inefficiencies, and financial exclusion. Strong corporate governance values would increase the accountability and transparency of the financial system.

Notions of responsibility and accountability play an important role in shaping the behavior of leaders in the public and private sector in an ideal Islamic financial system. Business leaders are expected to act prudently as opposed to recklessly and to act with the best ethical behavior. For example, taking excessive risks is a form of acting without prudence and probably in one's own self-interest rather than the larger interest of the shareholders and stakeholders. Similarly, attempts to circumvent regulatory constraints, find loopholes in the law, and misrepresent matters, and acts of willful negligence that were common practice among top business leaders during the global financial crisis would not be the traits of a leader compliant with the rules of Islam.

Prevailing legal systems are predominantly based on a conventional worldview. They are plagued with legal, administrative, and regulatory biases that favor risk-transfer–based debt financing. These include, but are not exclusive to, tax code favoritism that incentivizes the build-up of more financial leverage (Haneef and Mirakhor 2014; Haldane 2011) (see box 1.3). In fact, all institutional arrangements within the modern financial architecture, including the fractional reserve banking system and deposit insurance, were meant to facilitate the transfer of risk originating from finance. Therefore, the development of supportive legal and tax codes is absolutely critical for the efficient mobilization of resources on the basis of risk sharing.

Box 1.3 Whither Tax Code Favoritism?

Most corporate income tax (CIT) systems allow interest payments (which are based on risk transfer) to be deducted in calculating corporate tax liability. However, dividends (which are based on risk sharing) are not tax deductible. This tax code favoritism acts as an incentive to firms, including banks, to take on more financial leverage, increasing the threat to financial stability. Studies by De Mooij (2011) and Feld, Heckemeyer, and Overesch (2013), for example, show that a tax subsidy for debt due to a CIT rate of 25 percent (the average in the member countries of the Organisation of Economic Co-operation and Development, OECD) increases the debt-to-asset ratio in an average corporation by 7 percentage points. Schepens (2014) demonstrates that reducing the tax discrimination between debt and equity could be a viable policy tool.

Removing tax code favoritism can either be achieved by adding an allowance for corporate equity or by denying interest deductibility for corporations. While the former approach has been quite widely advocated by economists and implemented in some countries, such as Belgium, Cyprus, Italy, Switzerland, and Turkey, full denial of interest deductibility has not been implemented anywhere. Instead, some countries have opted for partial restrictions that deny interest deductibility beyond a certain fixed level of debt or interest.

Evaluations generally suggest that adding an allowance for corporate equity has been effective in reducing debt bias (IMF 2016a). Yet the majority of today's rules, which comprise partial restrictions on debt, that aim to restrict borrowing by related parties, are found to have no significant impact on debt bias (De Mooij and Hebous 2017). Also, these rules have no impact on mitigating risks to financial stability. Rules applying to all debt, in contrast, turn out to be effective: the presence of such a rule reduces the debt-asset ratio in an average company by 5 percentage points and reduces the probability for a firm to be in financial distress by 5 percent. Debt ratios are found to be more responsive to partial denial of interest deductibility in industries characterized by a high share of tangible assets. These findings have huge implications for the future of long-term investment financing.

1.7.3 Long-term Investment Horizon

Just as institutions guide human behavior by providing an incentive structure that is compatible with the way the mind perceives the world and its functioning, paradigms become relevant. Paradigms in economics include conceptions of humankind and society and their interrelationships. The Islamic economic paradigm is Creator-centered. There is a symbiotic relationship between humankind, the Creator, and the environment that clearly links Islamic principles and the emphasis on inclusive and environmentally friendly and fiscally sustainable development policies. Moreover, the Islamic paradigm places a strong emphasis on intergenerational sustainability in both environmental and fiscal issues.

As a result, an investor in the Islamic framework takes cognizance of social and environmental elements as integral parts of his/her decision process, conscious of his/her obligations toward individuals, society, the environment, and other living creatures (Mirakhor and Askari 2010). In terms of investment horizon, a rational Muslim is expected to be a long-

Box 1.4 Why Isn't Islamic Finance So Prevalent Today?

While experts agree that the absence of clear property rights and good governance; market failures and policy distortions; lack of awareness of the full cost of risk transfer and underutilization of the Islamic social sector hinder the mobilization of Islamic finance for long-term investments, they point to a problem that is even more deeply rooted. It is that of societal norms and behavioral responses. This is best exemplified in the dichotomy between the prescription of Maqasid (objectives) of Shari'ah (Islamic Law) and the current state of affairs in Muslim countries.

Islam prescribes a comprehensive set of rules of behavior (institutions), incentives and enforcement mechanisms, which can be systematically categorized as promoting the higher objectives intended by the Creator and Lawgiver; i.e. Maqasid al-Shari'ah.

Well into modern times, learned scholars sought to represent the true objectives of the Law Giver for individuals and their societies. A remarkable contribution to the field reduced the number of Maqasid to the three most essential and absolute minimum principles on the basis of inductive reasoning of the holy Qur'an, namely unity, individual and society's right to self-purification, and individual and societal right to development. In an attempt to assess the performance of Muslim communities against such objectives, Alaabed, Askari, Iqbal and Ng (2016) developed a Maqasid Benchmark Index that could serve as a self-inspection tool. The benchmark was multi-dimensional and based on injunctions from the Qur'an and Prophetic Sunnah with regards to the socio-economic behavior of Muslims. Dimensions included compliance with Islam axioms of Unity, Prophethood and accountability; spiritual and moral uplift and institutional quality, among other things. The design of the index allowed the benchmark user flexibility to adopt any conception of Maqasid he or she deems reasonable, whether classical or contemporary, or of three or more constituents. The index measured the compliance of 37 OIC member countries with Maqasid. It showed that in spite of Muslim countries' claim of Islamicity, there is a deep chasm between Islam's behavioral prescription and the current conduct in Muslim countries.

To illustrate this point, let us consider the fact that a number of businesses in Muslim countries conceal their incomes, understate their revenues, inflate their expenditures, and siphon off the money by maintaining multiple books of accounts and indulging in all kinds of malpractices. All of these heighten risks to capital providers and dissuade them from parting with their funds for extended maturities. On top of that, such practices tantamount to outright violations of Islamic rules of behavior. In a true Islamic society where Islamic values of truthfulness and integrity are observed these malpractices become non-existent, the strong attributes of the Risk-Sharing Model will certainly overwhelm all other modes of financing.

term investor who maximizes the utility of wealth instead of wealth itself to assure felicity here and in the hereafter.

In Islam, the expected behavior of financial institutions and markets is not any different from the expected behavior of any other member of the society. Although the institutions and markets themselves do not have a conscience, the behavior of their managers and participants becomes their behavior, and their actions are subject to the same high standards of moral and ethical commitment as expected from any member of society. The economic and moral behavior of financial institutions and markets are shaped by their managers and participants, and it is their fiduciary duty to manage the entity for the benefit of all the stakeholders and not for a minority class alone.

Nevertheless, today Islamic finance is criticized to fall short in achieving its aspirations. The industry needs to deal with a number of challenges in order to unlock its potential to mobilize funds for long-term investments. Box 1.4 provides a discussion on the underlying reasons that restrain the development of Islamic finance.

1.7.4 Risk-sharing–based Fund Mobilization

The core principle of risk sharing in Islamic finance stipulates that investors and users of funds share the outcome of the project or asset being financed. The unconditional prohibition of interest in any form by Islamic law eliminates unsecured debt from the financial system and gives preference to asset-backed and equity or participatory finance.

Encouraging financial instruments that promote risk sharing and asset-backed financing could make the financial system more conducive to long-term finance. The development of equity-based funding in capital markets could play an important role in mobilizing resources without creating leverage in the economy. A financial system based on asset-backed financing would encourage real transactions and growth in the real sector (World Bank and IsDBG 2016).

Long-term financing can be provided in either debt or equity form as both methods have a significant role to play in funding long-term investments. However, there is growing interest among the development community in the subject of equity participation as a tool to promote development. The impediments of debt finance have become increasingly obvious at both micro and macro levels, particularly given the growth of nonperforming loans. Indeed, borrowing has its advantages, but it can lead to problems if it is used to finance risky ventures or projects which are of a long-term nature. In comparison to debt-based finance, in equity finance the provider of capital is responsible to take on the risk. As there is flexibility in the pay-off, in relation to the project being backed, the risk is reduced and the likelihood of successful outcomes is enhanced (Wilson 1993). Box 1.5 explores the conceptual differences in the use of debt and equity funding.

In addition, social channel is another alternative for risk sharing-based fund mobilization. An important dimension of Islamic finance is the diverse set of financial products and arrangements that can be adapted to the requirements of the society and socioeconomic development. Islamic redistributive instruments have provided the rich with the means to share the risks of the poor and contribute to economic development of the society. Islam not only puts in place a method of redistribution of wealth—for example, at the time of distributing an inheritance—but also a method of periodically redistributing income and wealth in the form of zakāt, waqf, and more frequent ṣadaqāt and other contributions. These instruments play an important role in bringing idle wealth into circulation and productive use. To date, however, this product diversity has not been fully utilized in development financing. In practice, most financing for economic development is mono-contract–based and concentrated on a few modes. Thus, these social instruments need to be revived and institutionalized to gain optimal benefits and become a source for long-term investment, particularly by using waqf. For the Islamic social sector to be utilized in long-term projects it is important to reform the legal and regulatory environment as well as to develop innovative solutions to re-invigorate the sector.

Box 1.5 The Conceptual Difference between Debt and Equity

Contracts in general are akin to internal «rules of the game» (Fama and Jensen 1983). They specify counterparties' rights, criteria by which performance is evaluated, and parties' payoff structures.

An equity contract bestows rights proportionate to net cash flows. It represents residual ownership claims. Its payoff, defined as the sum of change in the price and dividends, is contingent upon future outcomes. An equity owner therefore assumes all risks of loss on his or her assets.

Debt, on the other hand, is a contract for the "rent of money" in which the borrower is allowed to use the sum of money subject to terms and conditions of repayment as to interest and principal. A fixed and predetermined rate of interest is allocated as a payoff to the lender, regardless of the state of the world or project outcome. The onus of debt repayment in a conventional debt contract is thus one where the default risk is transferred to the borrower.

Debt and equity contracts are part of a spectrum of risks. An equity holder is often interested in the high end of the risk-return distribution, whereas a lender interested in safety focuses on the low end of the risk-return distribution. In essence, as Rafi and Mirakhor (2017) identify, equity is about risk sharing, whereas debt is about risk transfer (to the borrower). The Modigliani-Miller theorem suggests that the cost of equity is the same as the cost of debt, but the theorem holds true only when there is no bankruptcy or tax differential.

There are therefore two elements of the debt-equity contract that requires constant monitoring and action. The first is surveillance and control (credit assessment, monitoring, and debt collection) over the financial condition of the borrower. The second is a time element in the contract. The longer the term of the debt, the higher the risk-return expectation.

The lender or investor is always subject to uncertainty as to the behavior of the borrower/investee, who can or try to cheat. Trust is always an issue. Uncertainties are monitored depending on the "skin in the game" of the players.

"From a social point of view, equity has a distinct advantage," Stiglitz (1989, 57) suggests. "Because risks are shared between the entrepreneur and the capital provider, the firm will not cut back production as much as it would with debt financing if there is downturn in the economy."

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Chapter 2
An Empirical Islamic Finance Framework for Financing Long-Term Investment

A large body of theoretical and empirical literature is devoted to the discussion of financial development and the role of a well-functioning financial system in promoting welfare and long-term growth. A well-developed financial system promotes efficient financial intermediation by alleviating information asymmetry to reduce transaction and monitoring costs. However, a growing body of literature is questioning the validity of a feedback system in which access to and use of credit is used as a proxy for financial development. Askari, Iqbal, and Mirakhor (2011) suggest that a financial system based on the supply of credit is too narrow because it focuses merely on the transfer of risk, enhancing speculative activities and short-termism in financial markets, and resulting in financialization of assets. For a long-term sustainable financial system, a more functional view is needed that promotes risk sharing rather than risk transfer. A lopsided financial sector is not conducive to effective risk sharing. Ul-Haque (2002) proposes an inclusive financial system that endorses:

- Efficient risk allocation
- Pooling of resources and diversification of ownership
- Efficient contracting
- Transparency and price discovery
- Efficient capital mobilization
- Better governance and control
- Operational efficiency.

Efficient risk allocation ensures that long-term projects of greater socioeconomic value but high risk are funded by matching profiles of investors. Pooling of resources and diversification of ownership ensure democratized access to finance, where supporting markets and institutions make available a broad spectrum of financial instruments to channel savings from households and corporations into an adequate matched supply of high-quality projects, on the basis of risk, value, and maturity matching. A sound financial infrastructure can contribute to long-term financing by improving macroeconomic conditions in an economy and by decreasing those externalities that make short-term financing more optimal.

This chapter empirically reviews whether a well-functioning financial system based on appropriate governance mechanisms, supporting infrastructure that enhances risk sharing, and institutional arrangements that promote trust and cooperation increases financing for long-term investments. In considering a well-functioning financial system, the analysis does not focus narrowly to proxies such as the depth of financial markets, but also consider other proxies that would capture wide-ranging issues such as the regulatory and supervisory framework, corporate governance, development of trust, and risk-sharing behavior. In doing so, the analysis aims to depict and compare the relative state of member countries of the Organisation of Islamic Cooperation (OIC) with respect to the rest of the world in terms of broader challenges in creating an enabling environment for long-term financing.

2.1 Factors Affecting Risk-Sharing Long-Term Finance

2.1.1 Macroeconomic and Political Stability

One of the major obstacles for financing long-term investment projects arises from the fact that long-term projects generate returns only after a certain period of initial investment. This makes long-term financing more susceptible to macroeconomic factors such as inflation and business cycle fluctuations. The demand and supply for the long-term financing can be adversely affected by lower macroeconomic stability (Caprio and Demirgüç-Kunt 1998). Unfavorable macroeconomic conditions such as high inflation, slow economic growth, and high volatility can contribute to lower demand for long-term investment by private sector firms. Conversely, stable macroeconomic conditions substantially contribute to growth and not only enhance the saving capacity of households and corporates but also create productive investment opportunities.

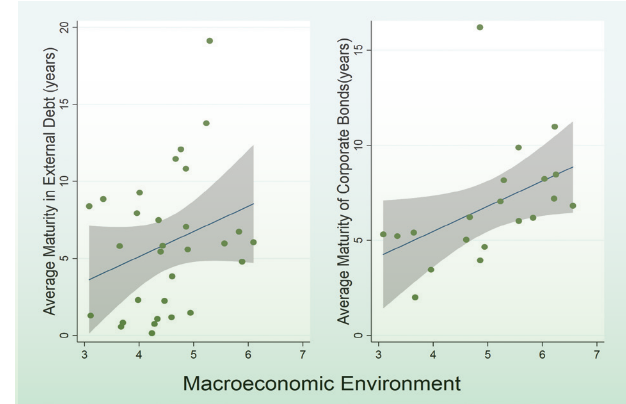
A stable macroeconomic environment reflecting a combination of economic and political stability helps in better assessing the risks and returns associated with long-term investments.

The increasing volatility of growth is an outcome of less diversified economic sectors and less diversified exports, among other causes. While the existence of low economic growth and low GDP can be seen as an opportunity to invest and achieve the potential level of GDP, individual firms do not have the capacity to overcome impediments and undertake large-scale investments that could bring about a change in the structure of the economy. Given the existing resource base, lack of institutional support, and poor governance, the cost of bringing about such a change becomes quite high for individual firms. Moreover, because of the positive externalities that the change is expected to generate—and which the change agents cannot internalize—the firms would undervalue the true social benefit of big projects that could offer huge benefits to the economy as a whole.

Similar reasoning holds true in addressing the volatility of growth due to less diversified exports. While increasing the diversity of exports is a potential opportunity, it is not in the capacity of individual private sector firms to lessen volatility. A diversified export market in terms of both diversity of products being exported and the number of countries to which these products are being exported would enable the domestic economy to better insulate itself from idiosyncratic shocks to its economy. Thus, slow and unstable growth discourages long-term private investment. Hence, the policies that can encourage broad-based economic growth and increase diversification of trade while utilizing competitive advantage can result in increasing both the demand for and supply of long-term finance.

Figure 2.1 exhibits the role of macroeconomic stability in determining the maturity structure of long-term debts. There is a strong positive correlation between macroeconomic stability and maturity of the financial instruments, implying that more stable

Figure 2.1 Macroeconomic Stability and Maturity of Financial Products in OIC Countries
10-year average, 2005–15



Source: International Debt Statistics (The World Bank)
The Global Competitiveness Report 2015-2016

macroeconomic conditions lead to longer maturity of financial instruments. Hence, economic programs that would increase long- term economic stability would potentially enhance both the demand for and supply of long-term finance. One way of creating relatively stable economic growth could be giving both consumption and investment equal importance and not relying too much on particular sectors.

2.1.2 Institutional Development

Besides macroeconomic and political stability, a well-functioning financial system reduces the effects of negative externalities (moral hazard and information asymmetries) that would otherwise make short-term investments preferable over long-term investment. Before the global financial crisis, it was believed that too much regulation distorted the market mechanism and would lead to socially suboptimum allocation of resources. The adverse global impact of the crisis led to the need for effective regulation and supervision of the financial sector. A strong supervisory and regulatory framework not only enables the smooth functioning of the financial system but also provides a possible way to deal with the negative externalities that make long-term investments less attractive. Longer maturities in long-term finance impose risks for providers of capital, which could be worsened by information asymmetries that prevent creditors from knowing the true nature of the profitability of investment and whether the borrowers are willing to repay the credit they have taken on (Stiglitz and Weiss 1981).

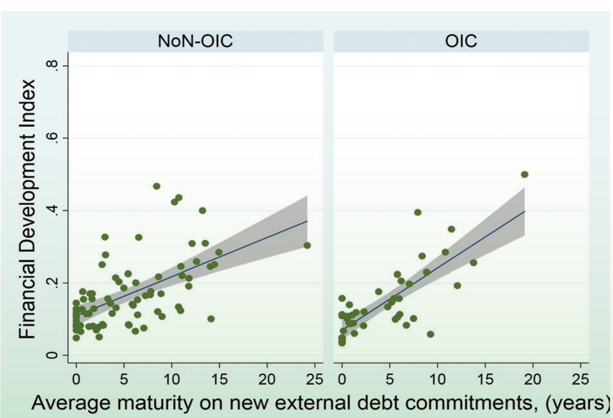
Strong institutions, the ability to effectively enforce financial contracts, a well-defined collateral framework, and agencies that could provide credit information are some of the factors that could alleviate the problem of informational asymmetries and agency problems (Peria and Schmukler 2017). Figure 2.2 reports the relationship between the Financial Development Index and the maturity of external debt, where the Financial Development Index includes all the broader proxies discussed earlier. The positive association clearly indicates that a well-functioning financial system could help facilitate long-term financing.

Another important factor that might influence the maturity structure of financial instruments is institutional quality. Institutional quality and good governance not only directly affect financial sector development, but their indirect impact is much larger on both the direction of financial development and on reducing short-termism in the financial system. Figure 2.3 presents the impact of regulatory efficiency on the maturity structure of debt instruments. Corporate bond maturity and external debt maturity are used as a proxy for maturity structure, and the effectiveness of the regulation of stock exchanges is used as proxy for not only regulatory effectiveness but also for risk-sharing financial infrastructure. The positive association reported in all the panels highlights the importance of the effectiveness of the quality of the regulatory framework in promoting long-term financing.

2.1.3 Risk Sharing

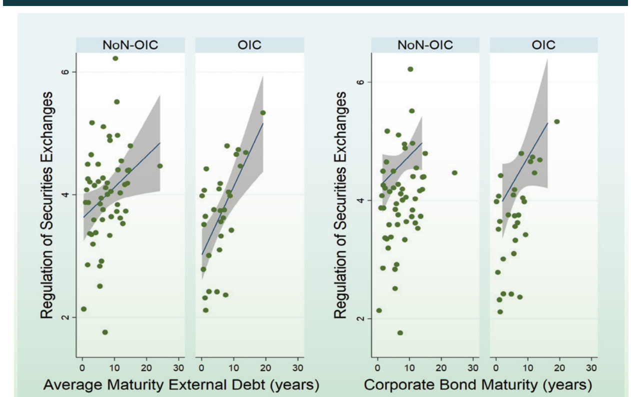
A well-functioning efficient financial market is also necessary to innovate a variety of financial products

Figure 2.2 Financial Development and the Average Maturity of External Debt



Source: International Debt Statistics (World Bank); World Bank calculations.

Figure 2.3 Regulatory Efficiency and the Maturity Structure of Financial Products
10-year average, 2005–15

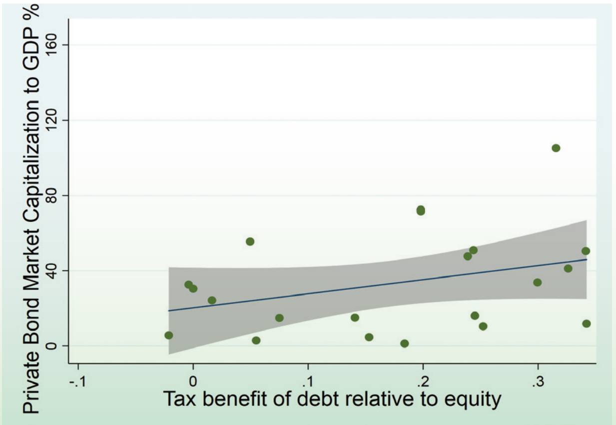


Source: International Debt Statistics (The World Bank) The Global Competitiveness Report 2015-2016

Source: Global Financial Development Database, 2017; WEF 2015.

to match the needs of investors with long-term investment horizons. While bank borrowing and bond issuance exemplify risk-transfer–based debt-financing instruments, an active and efficient stock market is arguably the best avenue for risk sharing (Brav, Constantinides, and Geczy 2002). Stock markets tend to be more strongly associated with greater use of long-term finance (Demirgüç-Kunt and Maksimovic 1999, 2002). However, stock markets need to function efficiently. In a recent paper, Alaabed and Masih (2016) find empirical evidence that the presence of stock markets in OIC member countries seems to facilitate risk shifting and to strengthen the incentive for opportunistic behavior. This may be because existing stock markets are fraught with the information asymmetry, speculation, short selling, and insider trading—all of which are inconsistent with the spirit of risk sharing. Moreover, lack of liquidity, informational asymmetry, and lack of governance are likely to undermine the integrity of stock markets and aggravate the moral hazard problem (Askari 2012; Askari, Iqbal, and Mirakhor 2010; Iqbal and Mirakhor 2011; Chapra and Khan 2000).

Figure 2.4 Debt Bias in a Tax System



Source: Oversch and Voeller 2010, Financial Developement and Structure Dataset, 2017

One of the important factors that potentially impedes the development of risk-sharing products is the debt bias prevalent in financial systems throughout the world. The fact that interest payments on fixed income instruments are tax-deductible creates an environment where debt-based financial instruments offer higher after-tax returns compared to risk-sharing instruments such as equities. Figure 2.4 reports the tax benefit of debt relative to equities from 23 European countries, drawn from Overesch and Voeller (2010). There is a positive relationship between the size of market capitalization of the private bond market and the tax bias toward debt securities. Hence, one can argue that creating a fairer tax system that treats risk- sharing products such as equity financing and fixed income instruments such as debt similarly could help the development of a financial system based on principles of risk-sharing products.

Akin, Iqbal, and Mirakhor (2016) developed a multidimensional composite risk-sharing index (RSI) that encompasses different aspects of risk-sharing concept, grouped under four components: institutional scaffolding, governance and legal environment, financial sector development, and multidimensional

Table 2.1 Components of the Risk-Sharing Index

Institutional scaffolding	Governance and legal environment	Financial sector development	Multidimensional inclusion
Information cost and quality	Legal system	General development	Economic inclusion
Property rights	Corporate governance	External firm financing	Financial inclusion
Contract enforcement	Regulatory quality	Alternative risk-sharing instruments	Social exclusion
Trust			
Solidarity			

Source: Akin, Iqbal, and Mirakhor 2016.

inclusion. Table 2.1 describes the indicators in each component. The composite RSI is then developed using factor analysis and the nonlinear weights methodology. Each indicator consists of various dimension of the each of the components[20].

Figure 2.5 provides a comparison of the financial sector of countries based on relative risk sharing. It reports the RSI of countries based on income groups. It is evident that risk sharing is higher in high-income countries than in countries lower on the income strata. Similar trends can be observed for OIC countries, although they have a lower median of RSI in all income groups. The lower level of risk sharing among the lower-income groups highlights the importance of risk sharing for economic development.
To understand whether risk sharing affects the maturity of financial instruments, figure 2.6 reports the relationship between the RSI and average maturities of external debt and corporate bonds. There is strong positive correlation between the RSI and average maturity of foreign debt commitments (panel a), suggesting that countries scoring lower on the RSI usually finance with debts of shorter maturity. The positive correlation between the maturity structure and the RSI validates the hypothesis that financing based on risk-sharing principles promotes long-term investments. A similar, positive correlation is also found for corporate external debt maturity, but it is somewhat weaker (panel b).

Figure 2.5 Risk-Sharing Index across Different Income Groups

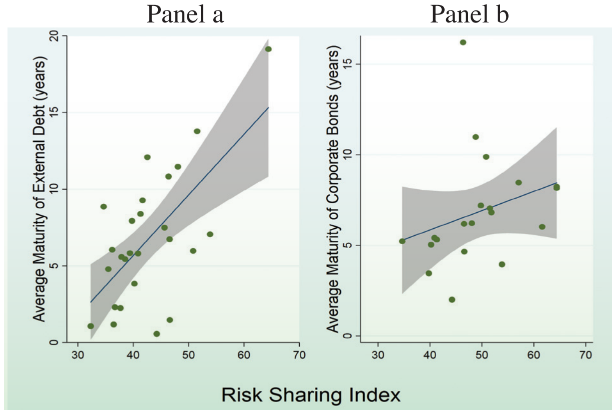
Source: Akin, Iqbal and Mirakhor 2016

2.2 Relative Status of Financial Development and Long-term Financing in OIC Countries

2.2.1 Financial Development

Long-term investment in OIC countries faces challenges of quantity as well as the challenges because of its composition. The quantity challenge is that domestic savings fall short of investment (and investment needs) in many OIC countries. This shortfall is partially covered by reliance on external capital flows. Despite this, the gap between savings and investment remains, which also affects the quantity of long-term investment. The challenge of composition is that of the savings that are invested, the proportion of long-term investments is low compared to short-term investments in all OIC countries. As chapter 3 argues, despite significant advantages, lack of adequate long-term financing remains one of the major challenges in the developing and even in the developed countries. To address these challenges, international institutions such as the World Bank, the Organisation of Economic Co-operation and Development (OECD), the Group of Twenty (G-20), the International Monetary Fund (IMF), and the Financial Stability Board have published several studies and have undertaken initiatives to create platforms to analyze possible reasons for why the markets might fail to provide long-term financing.
Several proxies have been utilized in attempts to

Figure 2.6 Risk-Sharing Index and Maturity Structure of Financial Products



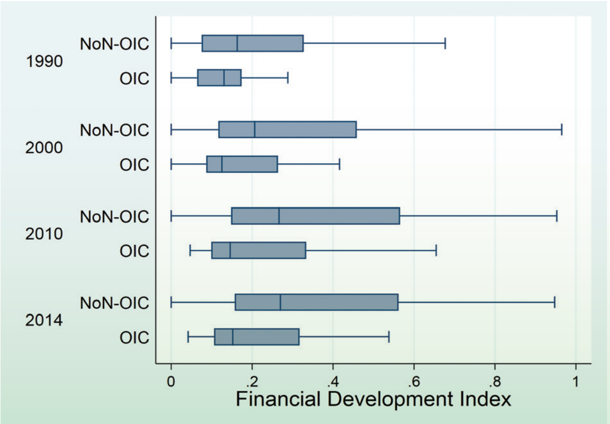
Source: Financial Development and Structure Dataset, 2017

[20]For the detailed lists of indicators under each component, see Appendix A of Akin, Iqbal, and Mirakhor (2016).

capture the well-being of financial system in a country. Ratios of GDP to private credit, and stock market capitalization are two of the most popular proxies used for that purpose. However, relying on one-dimensional proxies to ascertain the strength of financial system fails to capture the fact that financial system is multidimensional and has evolved significantly over time. The analysis in this chapter therefore uses aggregate multidimensional indexes (Svirydzenka 2016) and corresponding data gathered from the IMF Financial Development Index Database.

These multidimensional indexes are constructed using data from different data sources that aim to capture not only the depth of financial markets but also access (the ability of individuals and companies to access financial services), and efficiency (the ability of institutions to provide financial services at low cost and with sustainable revenues, and the level of activity of capital markets). For example, even if financial markets have a sizable presence in the economy, their contribution to economic development and allocate saving to investments in most productive manner would not take place if the financial system was wasteful and/or they did not decrease information asymmetries between savers and investors. Hence, one could argue that these indexes are better suited for this analysis, which takes treats financial development in a broader perspective.

Figure 2.7 Evolution of Financial Development Index

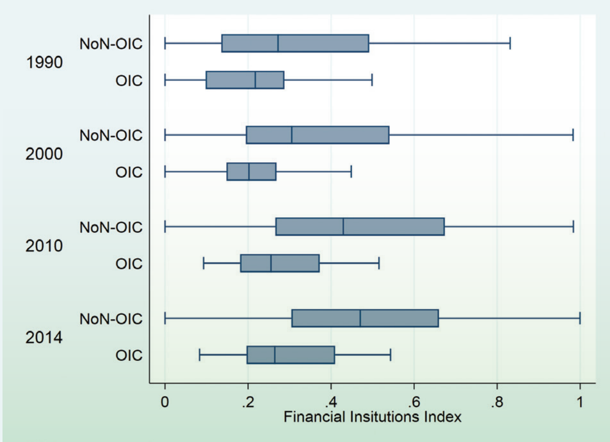


Source: IMF Financial Developement Index Database and author' calculations.

Figure 2.7 provides the evolution of broad Financial Development Index from 1990 to 2014 and contrasts the OIC countries with non-OIC countries. Both groups have made progress in this metric over the years. One striking feature is that even though the progress has been unequal in both set of country groups, the progress among OIC countries has been highly unequal. The median level of the Financial Development Index (marked by the vertical line in each bar) barely increased between 1990 and 2014. The range of development in non-OIC countries has been greater and the gap between OIC and non-OIC has persisted.

Figure 2.8 contrasts the two sets of countries with respect to the efficiency of Financial Institutions Index, which is one of the two subindexes of the aggregate Financial Development Index. This index includes banks, insurance companies, mutual funds, and pension funds. Insurance companies and pension funds are two of the major sources for long-term investments. This subindex arguably captures the performance of OIC countries in terms of the supply side of investments appropriate for long-term finance. Figure 2.8 shows that OIC countries have not had a big improvement in the Financial Development Index. Interestingly, between 1990 and 2000, the Financial Development Index decreased for OIC countries, but then bounced back between 2000 and 2010. On the other hand, non-OIC countries have followed a slow but consistent improvement in the Financial Development Index metric, but since the

Figure 2.8 Evolution of Financial Institutions Index



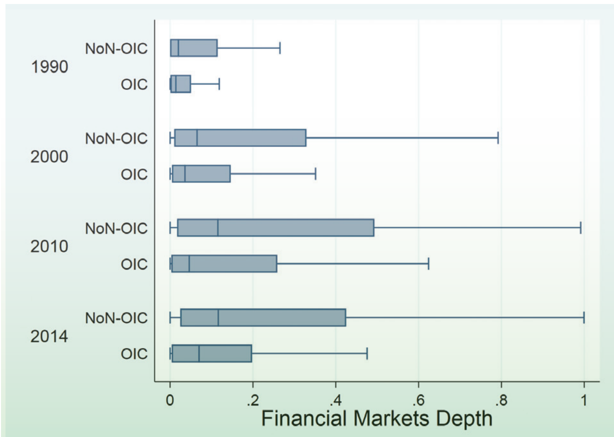
Source: IMF Financial Developement Index Database and author' calculations.

global financial crisis, this improvement seems to have stalled.

Figure 2.9 depicts the other subindex, the Financial Markets Depth Index. This index comprises stock and bond markets, and thus could be regarded as capturing the conventional venues of financing (fixed income and equities). The figure shows that both sets of countries experienced similar expansions during the increase in internet banking and investment banking between 1990 and beginning of 2000s and a decline after the global financial crisis. The OIC countries lag their non-OIC counterparts in all three periods.

Figures 2.7, 2.8, and 2.9 show that OIC countries are lagging their non-OIC counterparts. Even though there was some improvement between 1990 and 2014, it was very unequal. The gap between OIC and non-OIC seems most significant in the Financial Institutions Index, which is a better proxy for the supply of long-term finance opportunities because it captures institutional forms of financing. In three selected years (2000, 2010, and 2014), the median of the Financial Development Index in non-OIC countries is higher than the 75th percentile for OIC countries. Even the gap between the maximum value for the OIC countries of the Financial Development Index is not that different from the median of non-OIC countries. This suggest that in terms of supply of funds suitable for long-term finance, OIC countries might need additional improvement.

Figure 2.9 Evolution of Financial Markets Depth Index



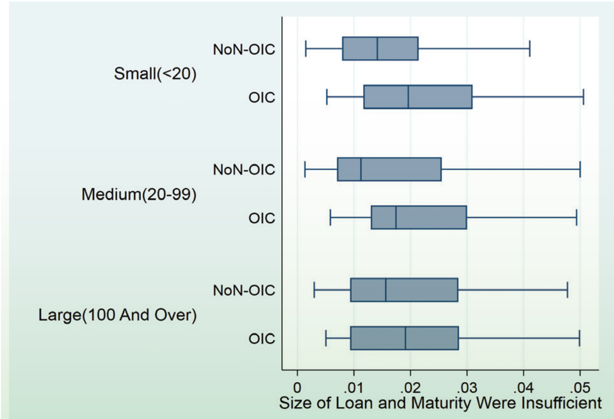
Source: IMF Financial Developement Index Database and author' calculations.

2.2.2 Long-Term Financing

This section analyzes the relative status of OIC countries with respect to non-OIC countries, using specific proxies that are intended to capture the status of long-term financing. Figures 2.10 and 2.11 are drawn from the World Bank's Enterprise Survey Dataset, which has information on over 100,000 firms in over 100 countries. Figure 2.10 depicts the percentage of firms that cited the main reason for not having access to financial services as "The size of the loan and its maturity were insufficient."

Firms are classified into three distinct categories (small, medium, and large) based on the number of employees. Firms in OIC countries, in all three size classifications, lag their non-OIC counterparts. Firms in OIC countries tend to cite the size and loan maturity as a possible obstacle in obtaining finance with a higher frequency than their counterparts in non-OIC countries. The biggest divergence between OIC and non-OIC countries is among small firms, while for large firms the gap seems to be not that significant. One explanation might be that corporate saving has increased sharply in recent period (Chen, Karabarbounis, and Neiman 2017), which might decrease the need for big corporations to seek funds for long-term finance. Another explanation might be that because small firms are regarded as high risk and do not have a well-developed audit system, financial institutions might be reluctant to offer financing to smaller

Figure 2.10 Percentage of Firms Citing Size of Loan and Maturity of Loan as Insufficient



Source: Enterprise Surveys, 2006-2016 and World Bank calculations.

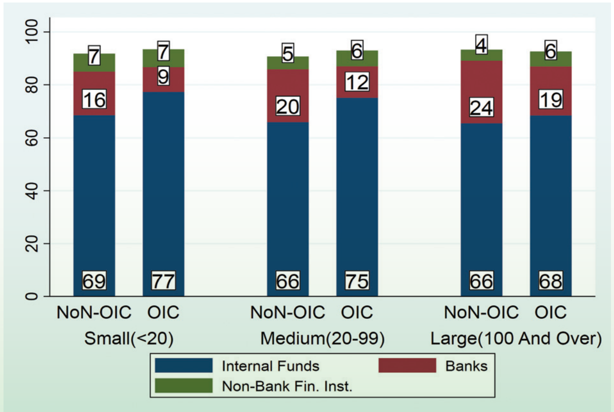
firms (Beck and Demirgüç-Kunt 2006). Information asymmetry problems also seem to limit the ability of small and medium firms to obtain long-term loans. The fact that small firms in OIC countries are more vulnerable to this phenomenon could be a sign that the externalities for financing are more severe in OIC countries.

The second proxy for long-term finance is fixed asset investment. Purchases of fixed assets or equipment are regarded as investments with a long-term horizon. Thus, they can be analyzed in capturing the behavior of firms with respect to their decisions about investments with a longer horizon. Figure 2.11 contrasts the three main types of sources of funding for long-term finance in three different size classifications of firms in OIC and non-OIC countries.

In general, small and medium firms tend to finance long-term investments through internal funds. Use of external finance, such as banks, seems to be weaker in OIC countries compared to non-OIC countries. For example, in OIC countries, small and medium firms financed 9 percent and 12 percent of their long-term investment from banks, respectively, while for small and medium firms in non-OIC countries, bank financing is higher (16 percent and 20 percent, respectively).

One of the main sources for long-term financing is institutional investments. Institutional investors can offer funds for long-term financing not only to providers of conventional finance but also to providers of Islamic finance. Currently, the Islamic banking sector dominates the Islamic finance market. Banks—as financial intermediaries that provide financing by raising money through deposits—have limited capacity for maturity transformation because a large portion of their deposits is withdrawable on demand. This is indeed the case on the deposit side of Islamic banks, and explains the lack of availability of long-term financing from Islamic banks.

Figure 2.11 Source of Finance for Fixed Asset Investment



Source: Enterprise Surveys, 2006-16, World Bank calculations.

In the Islamic capital markets, a large portion of finance providers are individuals or banks (either directly or indirectly through their subsidiaries or related institutions). Individuals can get liquidity constrained easily; hence, they usually do not invest with very long investment horizons. The beneficial aspect of the presence of individuals as investors in the capital market is that, in normal times (noncrisis situations), not everyone will be liquidity constrained at the same time. This diversity of timing of their liquidity demand helps maintain the stability and liquidity of the market. Despite individual investors' short horizons, the maturity transformation in the capital markets is made possible through trading in secondary markets, where new investors replace the old ones when the shares are traded. Banks, because of their large size and scale compared to individuals, can invest with better risk management and for longer duration in capital markets than individuals. However, as large players that rely on withdrawable deposits, their redemption and sales decisions can affect the market, contributing to large fluctuations in investable funds.

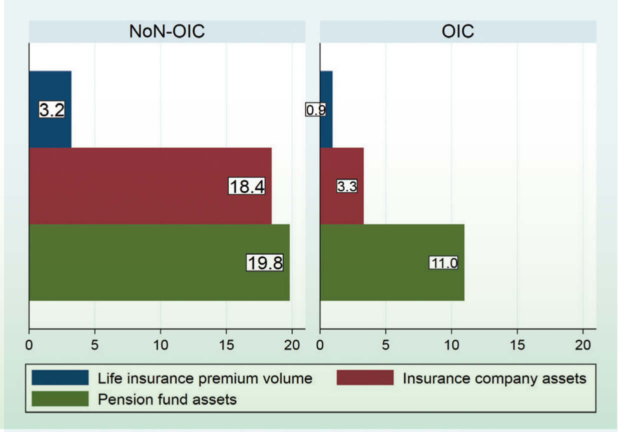
In this context, the existence of other institutional investors, such as pension funds and insurance companies, with long horizons and with a stable long-term funding base, can support long-term investments in capital markets and enhance the supply of long-term finance.

To capture the relative position of institutional investors, this analysis uses insurance fund premiums and pension fund assets as a ratio of GDP. Alongside sovereign wealth funds and mutual funds, insurance and pension funds constitute a very significant portion of the supply side for fund for long-term investments. Although institutional investors tend to invest in very secure financial products with high ratings, increasing the base of institutional investors could help the overall development of the financial system, increasing the variety of financial products, which would improve diversification opportunities. Figure 2.12 shows that the OIC countries do not have a well-developed institutional investor base. Life insurance premiums are 0.9 percent of GDP in OIC countries, compared to 3.2 percent in non-OIC countries. The gap in pension fund assets and total insurance company assets as a percentage of GDP (15 percent and 8 percent, respectively) is even higher between OIC and non-OIC countries. One important contribution that the institutional investors can offer for the development of financial system is that they tend to follow an investment strategy that is "patient [and] countercyclical, which could help to deepen long-term financial markets" (Davis and Steil 2001).

Reforms that would improve the overall financial infrastructure would decrease externalities such as information asymmetry that inhibit the development of long-term finance. Once the severity of these externalities is reduced, new financial instruments that rely on risk-sharing principles would flourish. This, in turn, would increase the diversity and arguably the stability of financial instruments available for long-term finance.

Figure 2.13 presents the possible contribution of Islamic finance to long-term finance. The figure shows that there is a positive correlation between the strength of Islamic finance presence (measured by share of sukūk issuance as a percent of GDP and Islamic banking assets as a percent of GDP) in a country and the Financial Development Index. This suggests that developing the financial system would not only increase the maturity of financial instruments, but also contribute to the development Islamic finance.

Figure 2.12 Institutional Investors, Non-OIC and OIC Countries
10-year average, 2005–15



Source: Global Financial Development Database, 2017; Worls Bank calculations.

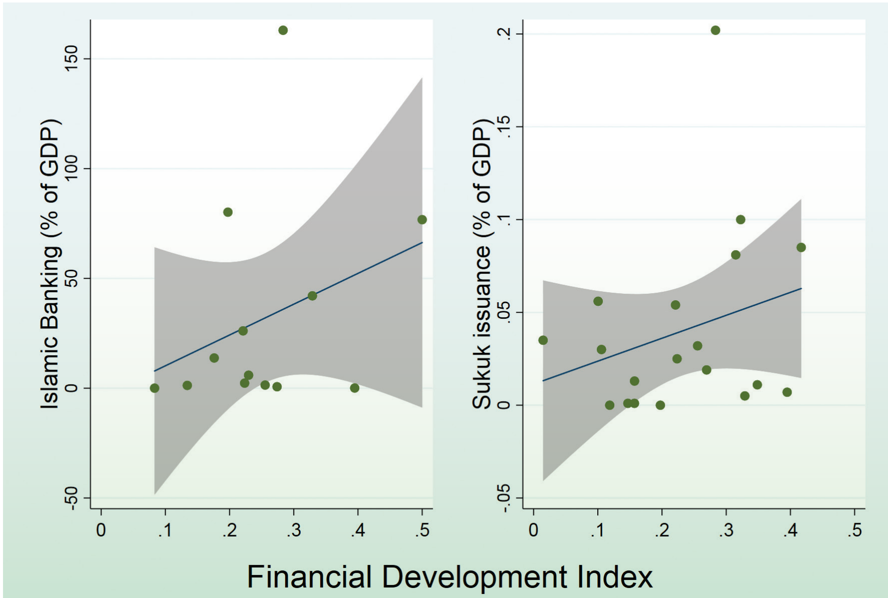
The maturity structure of various financial products in OIC countries and non-OIC countries is presented in figure 2.14. The comparison is for conventional debt products, recognizing that these are not Sharīʻah-compliant. The purpose of the comparison is only to show the deficiency in long-term financing.

As panel a shows, the median value for non-OIC countries of the percentage of bank loans to nonfinancial firms that have a maturity or more than one year is 70 percent. That is, of all the loans from banks to firms, only 30 percent have maturity of less than one year. By contrast, in OIC countries, around 80 percent of loans have a maturity less than one year. As seen in panel b, the median of maturity of corporate bonds in OIC countries is around three years less than in non-OIC countries. Furthermore, the median of non-OIC countries is approximately equal to the 75th percentile of the distribution of OIC country corporate bond maturities. The same trend is observed for the maturity structure of corporate bonds issued by non-financial firms (panel d). However, the average maturity of syndicated financing in OIC countries is slightly better than in non-OIC countries (panel c). One reason might be because in OIC countries, syndicated financing, which is provided by big international banks to large corporations, tends to focus on infrastructure projects, which have longer maturities, while in more developed countries, these loans are channeled into corporate projects, which do not have as long a maturity as infrastructure projects. (Cortina-Lorente, Didier Brandao, and Schmukler 2017).

Figure 2.15 reports the factors that influence the volume of long-term sukūk issuance[21]. Governance indicators such as Rule of Law, Voice and Accountability, Regulatory Quality, Political Stability, and Government Effectiveness, are plotted against the Financial Development Index. Higher values on

Figure 2.13 Islamic Finance and Financial Development Index

Panel a | Panel b



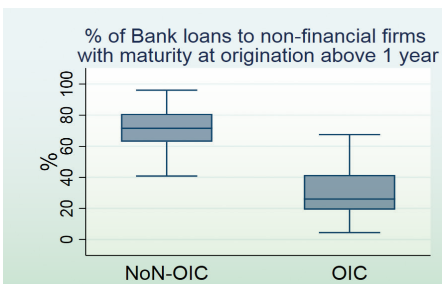
Source: Bankscope, IMF Fianacial Development Index Database, 2016

Source: Bankscope, IMF Fianacial Development Index Database, 2016

Figure 2.14 Maturity Structure of Various Financial Products

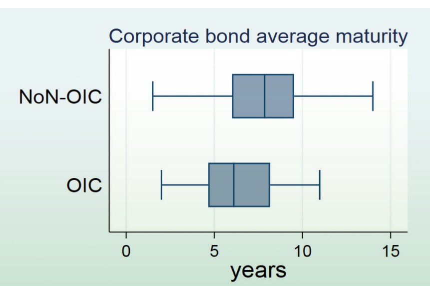
10-year average, 2005–15

Panel a



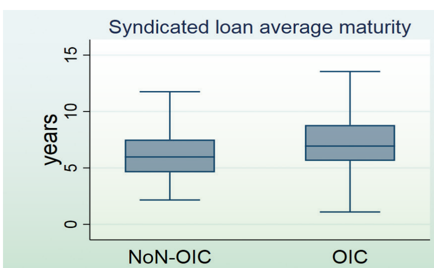
Source: World Bank 2015, Appendix B.

Panel b



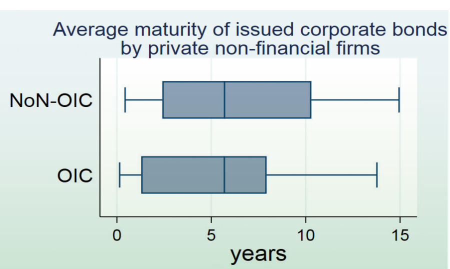
Source: Global Financial Development Database, 2017

Panel c



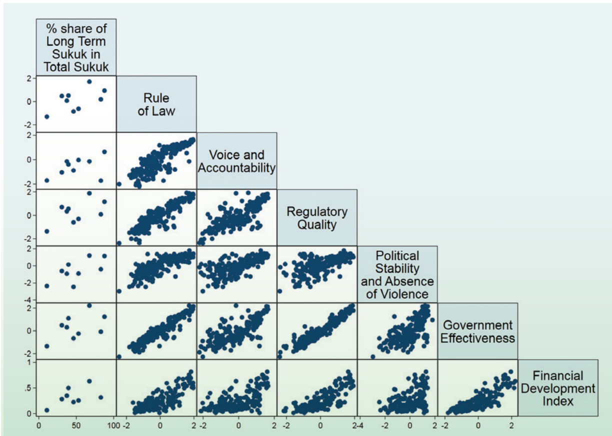
Source: Global Financial Development Database, 2017

Panel d



Source: International Financial Debt Statistics (World Bank), 2017.

Figure 2.15 Factors Affecting the Volume of Long-term Sukūk



Source: IIFM; IMF Financial Developemtn Index Database, 2016; Worldwide Governance Indicators and authors' calculations.

the governance indicators are positively correlated with the share of long-term sukūk issued as a percentage of total sukūk. This indicates that countries with a better governance structure—including sound regulatory and supervisory frameworks, rule of law, sound institutions, and an effective government—are more likely to issue long-term sukūk than short-term or medium-term sukūk.

These findings suggest that having a sound regulatory system would ease the uncertainties related to long-term investments. All these factors could reinforce one another in decreasing the uncertainties regarding long-term investments. In addition to these governance indicators, countries with higher values on the Financial Development Index also issue more long-term sukūk. As noted, these findings reinforce the importance of having sound financial infrastructure in extending the maturity structure not only of conventional financial products but also of Islamic financial instruments.

Table 2.2 looks at various factors that affect the maturity structure of financial products in OIC countries. The variables included in the regressions were chosen to maximize the number of observations. "Average maturity on new private external debt commitments(years)" and "Corporate bond average maturity (years)" are used as two proxies to capture the average maturity in a given country. The values are averages of latest available data to capture the general trend and smooth out idiosyncratic fluctuations. In all eight regression models, the coefficient of the "Financial Development Index" is positive and significant. Similarly, the "Macroeconomic Environment Index" has a positive coefficient in all eight regressions and is statistically significant in six of them.

This simple analysis suggests that the two most important factors that policy makers need to focus on to develop long-term finance are developing a well-functioning financial system that would decrease negative externalities and creating stable, predictable macroeconomic conditions

Promoting macroeconomic stability based on lower volatility of economic growth and low stable inflation could decrease uncertainty regarding the future returns of long-term investments, enabling investors to calculate risk/return of their investments (Broner, Lorenzoni, and Schmukler 2013).

Policy makers also need to deal with market failures and externalities that promote short-termism. To tackle these problems, policy makers should adopt a more long-term strategy that relies on a broad spectrum of reforms, ranging from the legal system to governance structure in a country. (See chapter 4 for a detailed list of recommended policy reforms.) Such an approach would not only promote long-term finance but also financial instruments that are based on risk-sharing principles, such as equity financing and Islamic finance.

[21] Long-term sukūk is defined as sukūk with a maturity of more than five years. Only countries that have issued long-term (>5 years), medium-term (<5 years and >1 year), and/or short-term (<1 year) sukūk at least once between 2006 and 2016 are considered. The share of long-term sukūk issuance is defined as the share of total long-term sukūk issuance over the total sukūk issuance for each country between 2006 and 2016.

Table 2.2 Maturity Structure of Financial Products in OIC Countries

Dependent variable	Average maturity on new private external debt commitments (years)				Corporate bond average maturity (years)			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Financial Development Index	5.860***	5.659***	5.332***	4.723***	2.287*	1.661*	2.292*	2.314*
	(1.381)	(1.285)	(1.469)	(1.584)	(1.178)	(0.888)	(1.261)	(1.279)
Macroeconomic environment		1.291**	1.061	0.801		1.192***	1.638***	1.770**
		(0.560)	(0.680)	(0.786)		(0.379)	(0.483)	(0.645)
GDP per capita			0.000	0.000			0.000	0.000
			(0.000)	(0.000)			(0.000)	(0.000)
Strength of investor protection				0.625				-0.379
				(0.579)				(0.849)
Constant	17.05***	11.17***	11.17***	8.066**	9.884***	3.202	2.442	4.051
	(2.706)	(2.678)	(2.750)	(3.799)	(1.890)	(2.868)	(2.821)	(5.823)
Observations	34	30	30	30	21	20	20	20
R^2	0.505	0.574	0.578	0.607	0.110	0.265	0.305	0.324

Sources: Global Financial Development Database, 2017; WEF; International Debt Statistics (World Bank); Financial Development and Structure Dataset, 2017; IMF Financial Development Index Database, 2016.
Note: p-values calculated from robust standard errors are reported.
**** p<0.01, ** p<0.05, * p<0.1*

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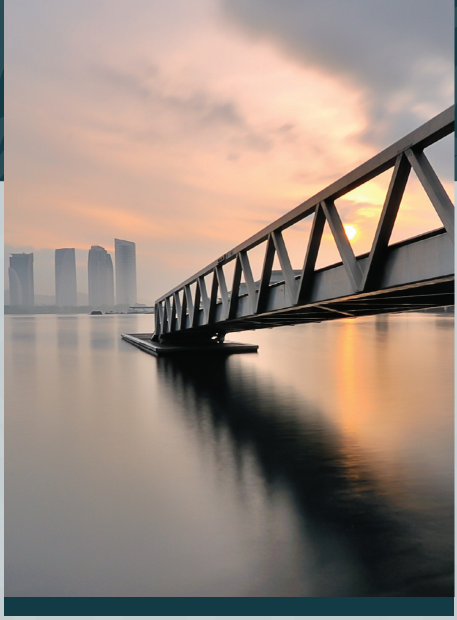


Chapter 3
Developments and Challenges in the Islamic Financial Sector

3.1 Sectoral Development

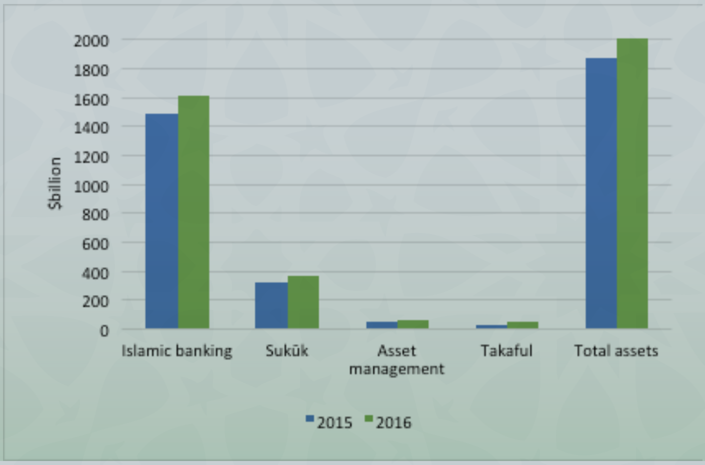
The exceptional growth of the Islamic finance industry in the last decade is a remarkable development from a low base, but the industry still constitutes a tiny fraction of global finance. The risk-sharing nature of Islamic finance has attracted attention in all financial sectors, including banking, capital markets, and insurance. Figure 3.1 shows the performance of Islamic financial services industry from 2015 to 2016.

The development in various sectors of Islamic finance is discussed next, along with an analysis of the status of their activities to engage in risk sharing and long-term financing.

3.1.1 The Status of the Islamic Banking Sector in Financing Long-term Investment

After increasing by double digits starting in the early 2000s, growth in the Islamic banking sector has slowed recently. In 2015 and 2016, Islamic banking

Figure 3.1 Change in Assets of the Islamic Finance Sector, 2015 versus 2016



Source: IsDB staff compilation of data obtained from multiple sources.

assets grew by single digits (5 percent and 8 percent, respectively) (table 3.1). The tremendous growth in Islamic banking assets has brought challenges for risk management. The systemic importance of Islamic banks has also increased. Islamic banking assets have reached 15 percent or more of the banking sector in at least 12 countries, a recent report by the Islamic Financial Services Board (IFSB 2017) highlights. The report also notes that almost 30 percent of Islamic banking assets are held by domestic systemically important Islamic banks.

Although net financing of Islamic banks grew in 2015 and 2016, profitability was adversely affected in 2016. The declining trend in profitability may hint at greater competition among Islamic banks in a contractionary environment, especially in the markets in Gulf Cooperation Council (GCC) countries. Table 3.2 reflects some of these trends.

After the GFC, the banking sector is going through deleveraging, and Islamic banking sector is not immune to it. Compliance with the new regulatory requirements especially related to funding stability and liquidity has forced the banks to have a more stable balance sheet where assets and liabilities are to match closely (Ashraf, Rizwan, and L'Huillier 2016). Since the objective of this report is to highlight the status of long-term financing the analysis is restricted to long term financing.

Table 3.1 Size of Islamic Banking Industry, 2014–16
$billion

	2014	2015	2016
Total assets (a)	$1,405.73	$1,484.04	$1,608.19
Assets held by domestic systemically important Islamic banks (b)	$369.38	$371.15	$414.38
Percentage (b)/(a)	30%	29%	29%

Source: IsDB staff compilation from data obtained from IFSB and ORBIS (bank-specific).

Table 3.2 Financing and Revenue Patterns of Islamic Banking Industry, 2014–16
$billion

	2014	2015	2016
Total financing	$874.04	$936.33	$1,028.97
Reserves for impaired loans	$52.76	$50.86	$52.67
Net financing	$821.28	$885.47	$976.30
Revenue	$52.86	$54.53	$47.63
Operating income	$15.89	$16.88	$14.45

Source: IsDB staff compilation from data obtained from IFSB and ORBIS (bank-specific).

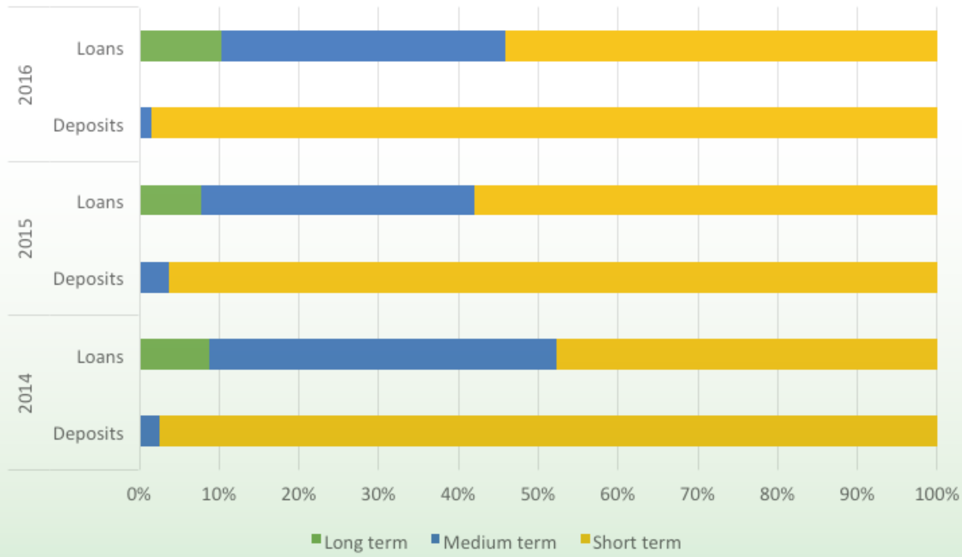
Figure 3.2 shows the maturity structure of loan and deposits for selected Islamic banks whose data was available in ORBIS. The long-term loans (maturity >5 years) are barely 10 percent of the overall loan portfolio. The lower proportion of long term financing is not surprising if we look at the maturity structure of deposits where long term deposits are barely one percent of the total deposits.

Since the objective of this report is to highlight the status of long-term financing, the next subsection describes the status of Islamic syndicated financing market.

Islamic Syndicated Financing

Amidst a global regulatory environment leading to tighter liquidity conditions, Islamic syndicated financing has emerged as a favorable financing alternative for borrowers with large and complex long term (with a maturity of five or more years) in the 2014–16 period. Project financing and capital expenditure are the largest contributors to new financing, especially in the long-term financing cat-

Figure 3.2 Maturity Structure of Loans and Deposits of Selected Islamic Banks



Source: IsDB staff compilation of data obtained from ORBIS (bank-specific).

financing requirements. The growth of new syndicated financing has not followed a systematic pattern. New loan approvals declined by 17 percent in 2015, but grew by 27 percent in 2016 (figure 3.3). This erratic change in demand and approval rate of new loans suggests that market is still in its infancy. An increasing number of corporations are seeking Islamic syndicated financing, in addition to other forms of Sharīʻah-compliant financing (see box 3.1 for some recent deals).

The demand for Islamic syndicated financing is more pronounced in the regions with a Muslim-majority population. Although loans were extended in various geographic jurisdictions, the Middle East and North Africa led the pack, followed by East Asia and Pacific from 2014 to 2016 (see figure 3.4).

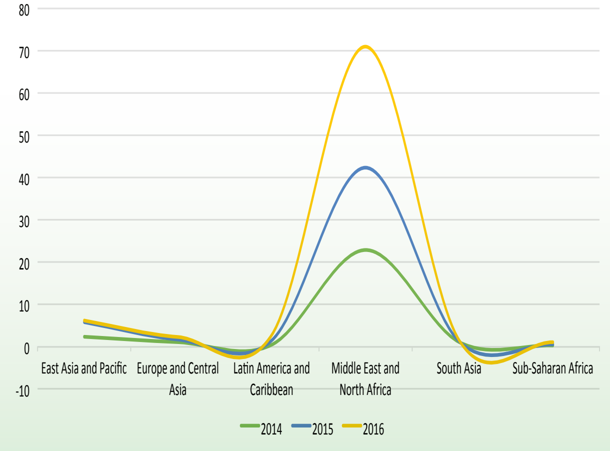
In terms of the maturity pattern of Islamic financing under syndicated financing, it is evident from figure 3.5 that about 90 percent of the financing was egory. Refinancing of existing loans greatly exceeds any category, followed by working capital financing. The pattern of long-term financing in the syndicated loan market is a positive sign, especially when banks must comply with the new regulations under the Basel III Accord that require them to hold more short-term reserves. The willingness to refinance existing finance can also be a positive sign, indicating the willingness of financial institutions to accept longer maturities.

3.1.2 The Role and Status of Islamic Capital Markets in Strengthening Long-term Financing

When an investor—whether an individual or an institution—does not provide all the capital for a project, other investors are needed to fill the void. The Islamic capital market provides a unique combination of assets to support long-term financing with multiple investors. Equity participation is more desirable when the investor shares the full risk of

Figure 3.3 Size and Growth of Islamic Syndicated Financing, 2008–16

Figure 3.4 Regional Distribution of Islamic Syndicated Loan Approvals, 2014–16

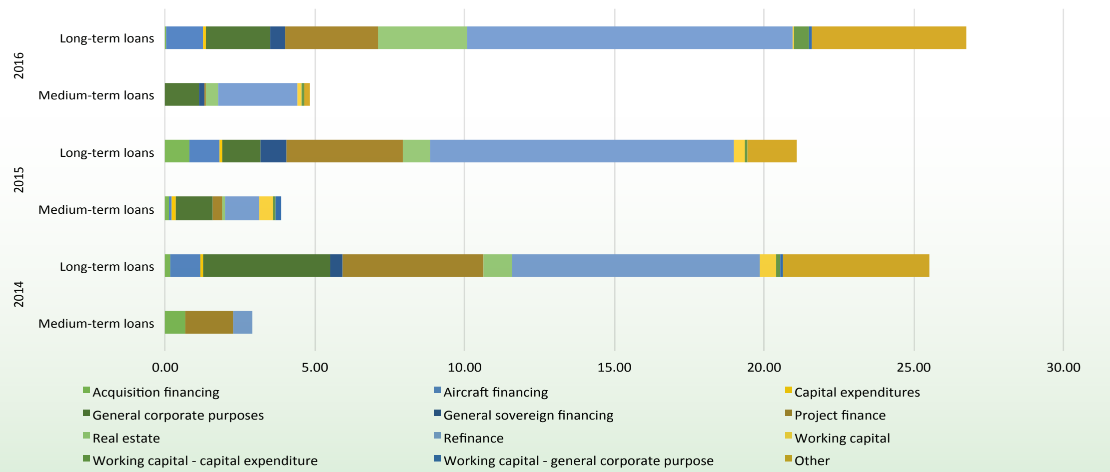


Source: IsDB staff compilation from data obtained from Bloomberg. Source: IsDB staff compilation from data obtained from Bloomberg.

failure of the investment. However, not all investors are the same and some may require liquidity or may need or wish to exit at a specific time. For such investors, the Islamic capital market offers fixed income investments in which the investor shares the ownership risk for a specified time.

The Islamic capital market consists of equities, fixed income securities, and money market instruments. Although equity investments are major proportion of Sharī'ah-compliant investments, in the absence of an organized exchange that tracks the performance of global Islamic equity markets, it is difficult to measure the size. Furthermore, the equities labelled as Islamic equities are merely the outcome of a Sharī'ah screening process (Ashraf 2016). The status of being Sharī'ah-compliant may not be very important for those firms whose equities are

Figure 3.5 Sectoral Distribution of Islamic Syndicated Financing by Maturity of Loans, 2014–16 27



Source: IsDB staff compilation from data obtained from Bloomberg.
Note: Long term = maturity of five or more years; medium term = maturity of one to five years; short term = maturity of less than one year.

Box 3.1 Islamic Syndicated Financing – Success Stories

Emirates Global Aluminium (EGA), an aluminium conglomerate based in United Arab Emirates, chose Islamic syndicated finance as an alternative source to access long-term funding. To refinance its existing project finance debt taken on for Abu Dhabi's Emirates Aluminium (Emal) projects such as the Taweelah aluminium smelting complex, EGA applied for a $4.9 billion seven-year syndication in November 2015, including a $1.23 billion Islamic syndication facility. The Islamic tranche of EGA's syndication was designed based on a commodity murābaḥah structure because of the ease of implementation. The deal was successfully concluded in February 2016, with strong participation of a wide financier group consisting of domestic, regional, and international financial institutions, some of which were new lenders to EGA. With a three-year grace period and 30 percent balloon at maturity, the transaction enabled EGA to optimize the capital structure by consolidating existing project finance loans into a single debt at improved costs.

Kuwait National Petroleum Company (KNPC), one of the world's top refiners, carried out a successful implementation of Islamic syndicated finance to obtain long-term funds to finance projects and investments. Within this framework, a KD1.2 billion ($4 billion) syndication comprising a KD710 million ($2.4 billion) conventional facility and a KD490 million ($1.6 billion) commodity murābaḥah facility was designed, with an amortizing structure with a ten-year tenor. The deal attracted very high interest among domestic and regional banks and was concluded with relatively favorable terms in April 2016. The syndication gave lenders a superior position in the cash cascade because most of the staple payments were subordinated to lenders' dues. Eleven financial institutions took part in this senior term syndicated facility. The proceeds from the facilities were utilized to finance KNPC's Clean Fuel Project (CFP), which will upgrade and integrate the Mina Abdulla (MAB) and Mina Al Ahmadi (MAA) refineries. Eventually, KNPC realized the largest-ever syndicated Kuwaiti dinar dual-tranche facility, and achieved a wider and more diverse source of long-term funding, despite unfavorable global financial conditions and challenges arising from low commodity prices.

The Islamic Corporation for the Development of the Private Sector (ICD) and *the International Trade and Finance Corporation (ITFC)* have embraced Islamic syndicated finance as an efficient means of extending funds to promote infrastructure development, and to support private sector and small and medium enterprises (SMEs) in developing countries. The ICD, the private sector arm of the Islamic Development Bank (IsDB), signed a contract with PT Mandala Multifinance Tbk (MMF) and entered into a syndicated murābaḥah facility worth up to $50 million to support SMEs in Indonesia in 2013. Most recently, the ICD has acted as a co-arranger in a $32 million syndicated term finance facility for Noman Group, one of Bangladesh's largest conglomerates in the textile and garments industry. Similarly, in March 2017, the ITFC, a member of the Islamic Development Bank (IsDB) Group, signed a contract with Atlantic Business International on behalf of its affiliated body, Banque Atlantique, for a €40 million syndicated financing facility. It comprises a two-tier murābaḥah structure to support SMEs and the private sector in West African member countries of the Organisation of Islamic Cooperation (OIC), in addition to promoting Islamic finance.

Sharīʻah compliant. For the purposes of this report, the discussion focuses on two sectors where investors made intentional choice to follow the Islamic finance principles. One is the global Islamic fund management and the other is the global sukūk market.

The mechanism available for the two forms of long-term financing include pooling of funds under an asset management company on both an equity and sukūk basis. Measures need to be taken to enhance corporate governance, the regulatory framework, and tax regulation for the continuous strong operation of the Islamic capital market.

Trends and Status of the Global Islamic Fund Management Sector

Global fund management industry is a growing sec-

Figure 3.6 Global Funds: Assets under Management by Asset Type, 2015 versus 2016

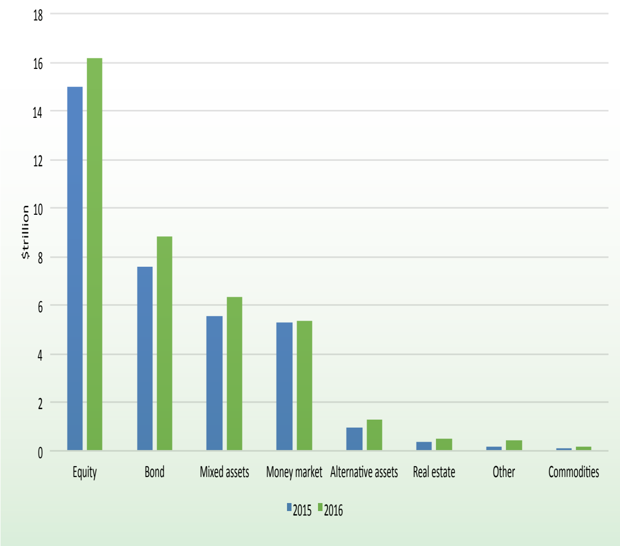
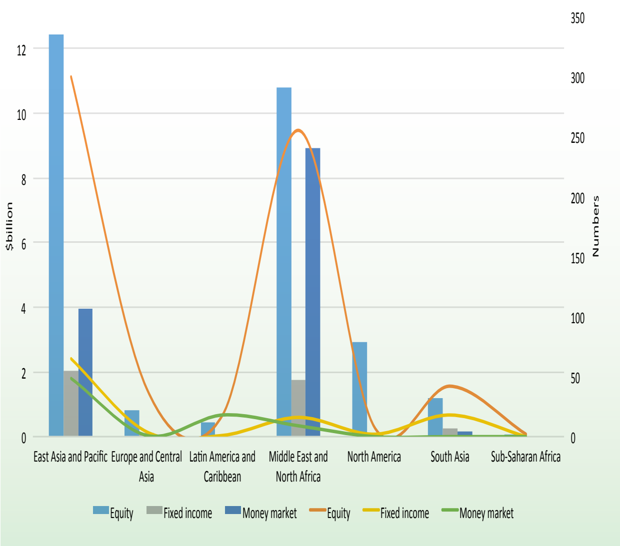


Figure 3.7 Regional Distribution of Global Islamic Funds by Type of Investments: Assets under Management and Number of Funds



tor of global financial market. Figure 3.6 depicts the global asset under management by type of asset. The majority of funds are held in equities, followed by fixed income securities—whether bonds or money market. It is difficult to assess the tenor of funds because of their different orientation and different originating geographic regions. However, the inclination of the majority of global funds toward equity highlights the higher risk appetite and longer time horizon of investors in mutual funds globally.
The Islamic fund management sector is much smaller and represents only about 1 percent of the global fund industry. However, in terms of orientation of funds, in line with their global counterpart, most of the assets under management (AUM) by Islamic funds are held in equity funds, followed by fixed income investments (figure 3.7).

The global Islamic fund sector is generally concentrated in regions with a Muslim majority. The Middle East and North African region leads, with asset under management of $21.45 billion, followed by the East and Pacific region, with assets under management of $18.44 billion at the end of 2016 (figures 3.7 and 3.8). Figure 3.9 presents the assets under management of global Islamic funds from 2014 to 2016. Assets under management for the Middle East and North Africa region declined steeply from 2014 to 2016. The sharp decline can be attributed to the plunge in oil prices in 2015, when most of the equity markets in the region lost a significant proportion of their value.

The preponderance of equity in the assets under management of funds, whether conventional or Islamic, indicates the appetite of investors for the long-term investment under a pure risk-sharing arrangement. A few Islamic mutual funds provide exposure to the infrastructure investments in Malaysia and Indonesia. However, there is a need for more such mutual funds that invest in long-term infrastructure projects.

Overview and Trends in the Sukūk Sector

Among all the Islamic finance products, sukūk has the potential to raise long-term financing for key sectors like infrastructure and energy. In terms of the market development, the sukūk market has witnessed enormous growth and accompanying challenges in the last decade. Figure 3.10 shows sukūk issuance (volume) in terms of maturity structure: short term (less than one year), medium term (longer than one year and up to five years), and long term (longer than five years).

Figure 3.8 Distribution of Assets under Management by Investment in the Size of Firms, 2014–16

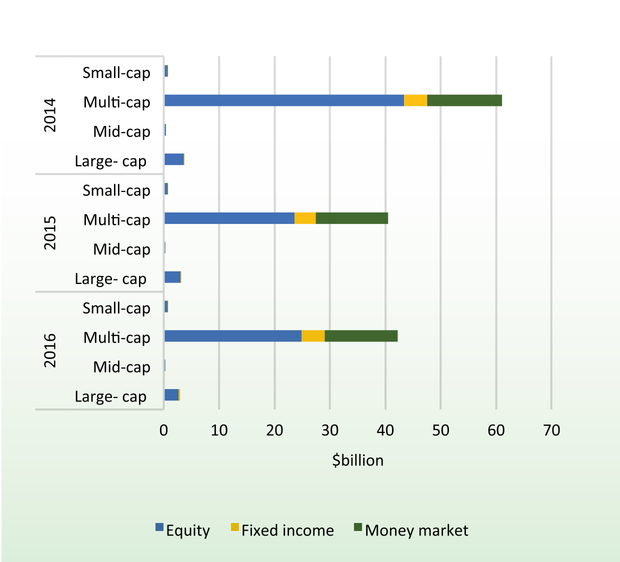
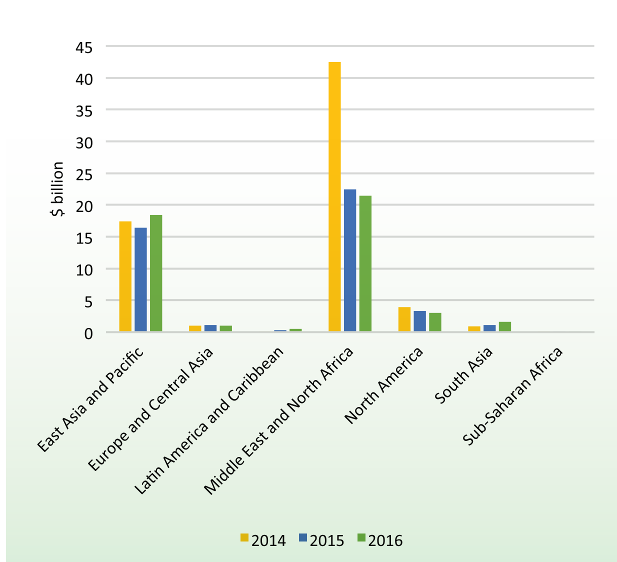


Figure 3.9 Regional Distribution of Global Islamic Funds Assets under Management, 2014–16



Source: Thomson Reuters Lipper: Global Fund Market Statistics for June 2017, Lipper analysis, investment funds.
Source: IsDB staff compilation from data obtained from Bloomberg.

Figure 3.10 The Number and Amount of Sukūk Issuance, 2006–16

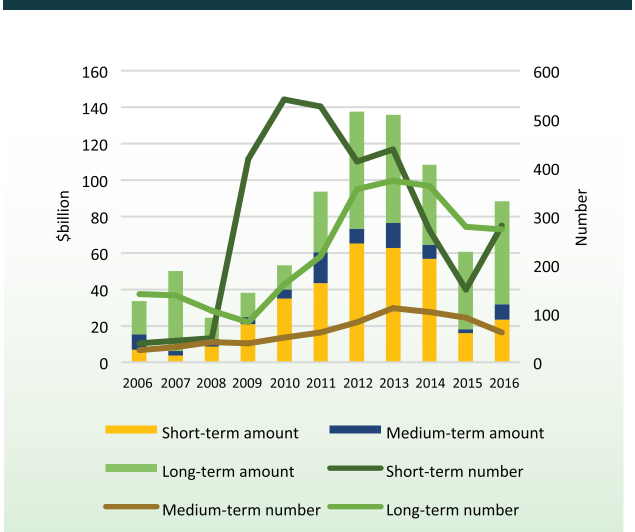
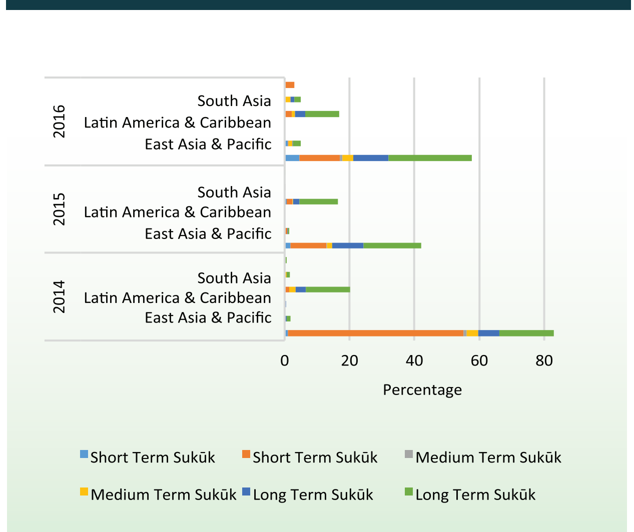


Figure 3.11 Maturity Structure of Outstanding Sukūk at the end of 2016



Source: IsDB staff compilation from the data obtained from IIFM.

Sukūk issuance surpassed $88 billion (about $60 billion in long-term sukūk and about $28 billion in medium-term and short-term sukūk) in 2016 as compared with $34 billion a decade ago, with a maturity structure from one week to perpetuity. However, the journey has not been smooth. In 2008, sukūk issuance dropped considerably, especially for long-term sukūk, because of the global financial crisis and some Sharīʻah compliance issues (figure 3.10). The market improved considerably by 2010 and peaked in 2012, when issuance amount for long-term sukūk reached $64.2 billion, matching the short-term sukūk issuance that year. The number and amount of short-term sukūk issuance picked up in 2009 when the Malaysian central bank started issuing sukūk to create liquidity in the market, and then slowed down in 2014. Long-term sukūk surpassed the combined issuance of short-term and medium-term sukūk in 2015 and healthy rising trend continued in 2016. The appetite for long-term sukūk issuance may well continue for the next few years due to the demand for funds from the Gulf Cooperation Council (GCC) countries to cover the budget deficit and complete infrastructure projects started earlier.

Figure 3.11 presents the maturity structure of outstanding sukūk at the end of 2016. About 90 percent of total outstanding sukūk were issued as long-term sukūk with a maturity of five years or more. The East Asia and Pacific region is at the forefront both in terms of number and amount of outstanding sukūk in all three maturity buckets. This can be attributed to the deliberate efforts of the Malaysian government to promote Islamic finance. More than 50 percent of outstanding sukūk will mature after five years, suggesting the suitability and acceptance of sukūk as instrument for financing long-term investment.

Table 3.3 Regional Breakdown of Maturity Structure of Sukūk Issuance, Selected Years
$billion and number

	Regions	2006	2010	2014	2015	2016
Short-term	East Asia and Pacific	$4.57 (14)	$34.41 (518)	$55.03 (182)	$12.80 (88)	$16.92 (221)
	Europe and Central Asia			$0.23 (9)	$0.83 (31)	$1.12 (35)
	Middle East and North Africa	$0.80 (24)	$0.67 (17)	$1.33 (18)	$2.33 (26)	$2.20 (24)
	South Asia				$0.04 (4)	
	Sub-Saharan Africa	$1.52 (1)	$0.00 (6)	$0.01 (63)		$3.07 (1)
Medium-term	East Asia and Pacific	$1.03 (22)	$3.31 (46)	$4.70 (95)	$1.81 (89)	$4.16 (50)
	Europe and Central Asia		$0.11 (2)	$0.52 (2)	$0.20 (1)	$1.37 (2)
	Middle East and North Africa	$7.48 (3)		$2.02 (2)	$0.27 (1)	$1.07 (5)
	South Asia		$1.02 (2)	$0.54 (4)		$1.90 (4)
	Sub-Saharan Africa		$0.31 (1)	$0.20 (1)		
Long-term	East Asia and Pacific	$13.88 (123)	$7.95 (143)	$23.18 (328)	$27.43 (246)	$36.54 (230)
	Europe and Central Asia		$0.00 (0)	$1.66 (7)	$0.61 (8)	$2.57 (7)
	Latin America and Caribbean	$0.17 (1)		$0.50 (1)	$0.10 (1)	
	Middle East and North Africa	$3.65 (10)	$5.34 (17)	$16.82 (20)	$13.87 (22)	$13.45 (28)
	South Asia	$0.18 (4)	$0.00 (0)	$1.08 (6)	$0.22 (1)	$3.14 (6)
	Sub-Saharan Africa	$0.35 (2)	$0.00 (0)	$0.50 (1)	$0.22 (1)	$0.74 (3)

Source: IsDB staff compilation from data obtained from IIFM.
Note: The number of sukūk appear in parentheses. Long-term = maturity of five or more years; medium-term = maturity of one to five years; short-term = maturity of less than one year

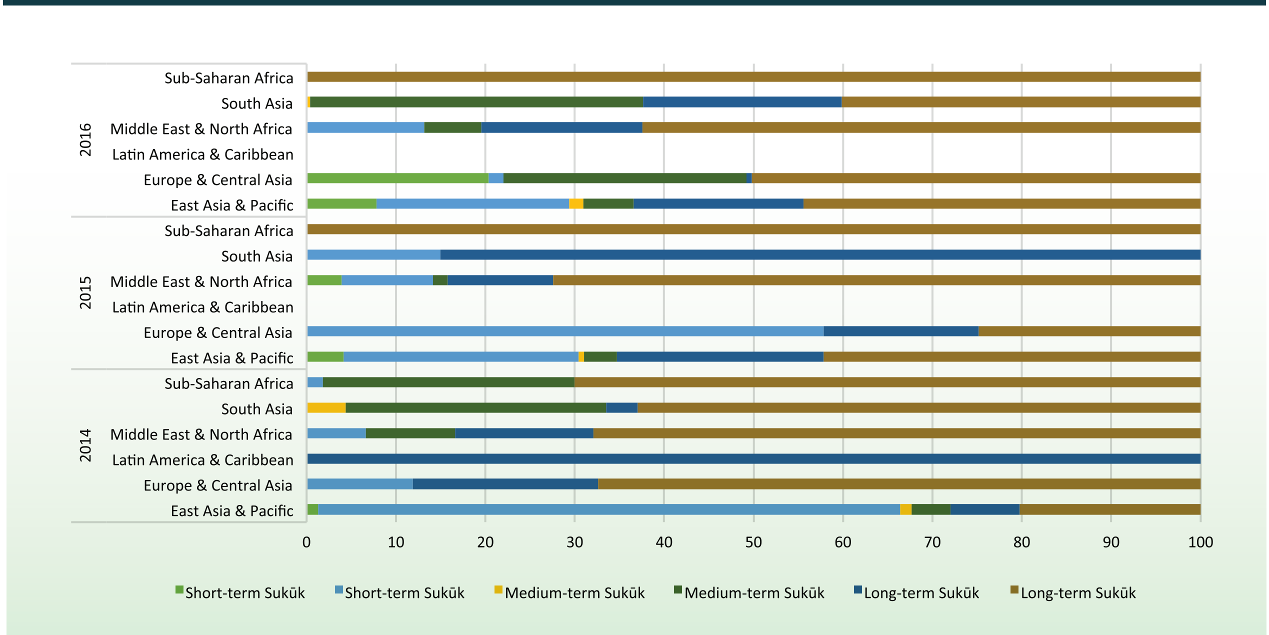
Table 3.3 provides a regional breakdown of sukūk issuance in terms of amount and number of sukūk with respect to terms of maturity for selected years. It is evident from the table that the sukūk market has undergone a structural change over the last decade. While the amount of sukūk issued in medium to long tenors has generally been rising, issuance of sukūk with a maturity of less than one year has declined by more than 50 percent. The most notable finding from the table is the decline in short-term sukūk issuance in 2015 in the East Asia and Pacific region. The fall in sukūk issuance in the short-term category can be attributed to the nonissuance of sukūk by Bank Negara Malaysia for liquidity reasons.

The trend for the long-term sukūk issuance remained positive in most regions, including East Asia and Pacific, with slight decline in the Middle East and North Africa region from the peak of $16.82 billion in 2014 to $13.45 billion in 2016. Despite enduring global challenges, including low oil prices, issuance of new sukūk increased from 2015 to 2016, despite a 44-percent drop in 2015 as compared to 2014. One of the major contributors to the higher growth in sukūk issuance is the participation of new issuers in jurisdictions from Asia, the Middle East and North Africa, and Sub-Saharan Africa. This is an encouraging sign for the sukūk market, especially for the sukūk with longer tenor.

To further understand whether corporate issuers have been interested in sukūk issuance, the data was divided by issuer type, whether corporate or sovereign. Figure 3.12 provides a regional analysis of sukūk issuance based on the type of issuer and maturity for selected years. Sovereign sukūk issuance generally outpaced corporate sukūk issuance. This trend is more pronounced in the East Asia and Pacific region. Corporate issuance has surged, to reach 24 percent of global sukūk issuance in 2016, as compared with 12 percent in 2014. More sukūk issuance is expected in the coming years due to the budget deficit in the oil-rich Middle East and North Africa region.

One important sign of the potential of long-term sukūk issuance is the acceptance of sukūk as Tier I and Tier II capital for banks in most jurisdictions. This also has helped in developing new sukūk structures.

Figure 3.12 Regional Sukūk Issuance: Sovereign versus Corporate Sukūk Issuance, 2014–16



Source: IsDB staff compilations from data obtained from IIFM.
Note: There was very little sukūk issuance in Latin America and the Caribbean in 2015 and 2016.

3.1.3 Insurance Companies and the Takāful Market

Because of their liability profile, which spans the lifetime for a policy holder, insurance companies are able to invest in long-term funding. However, their ability to allocate resources to long-term funding, especially private sector projects, is constrained by their portfolio restrictions. In recent years, the amount of funding allocated by insurance companies to equity and private equity has declined relative to bonds.

Figure 3.13 shows the portfolio allocation of insurance companies from selected countries. It is evident from both panels that insurance companies from a majority of the countries hold a major proportion of their portfolio in bonds, followed by equities. The striking fact is that most of the bonds that insurance companies hold in their portfolios are public-sector bonds, which again reflect the conservative nature of the investment portfolios of insurance companies (figure 3.14).

The investment portfolio profile of insurance companies suggests that insurance companies would be interested in high-quality infrastructure bonds backed by sovereign guarantees.

The takāful market is still in its infancy in serving both the life and general takāful needs. Overall,

Figure 3.13 Investment Portfolio Allocation, 2015

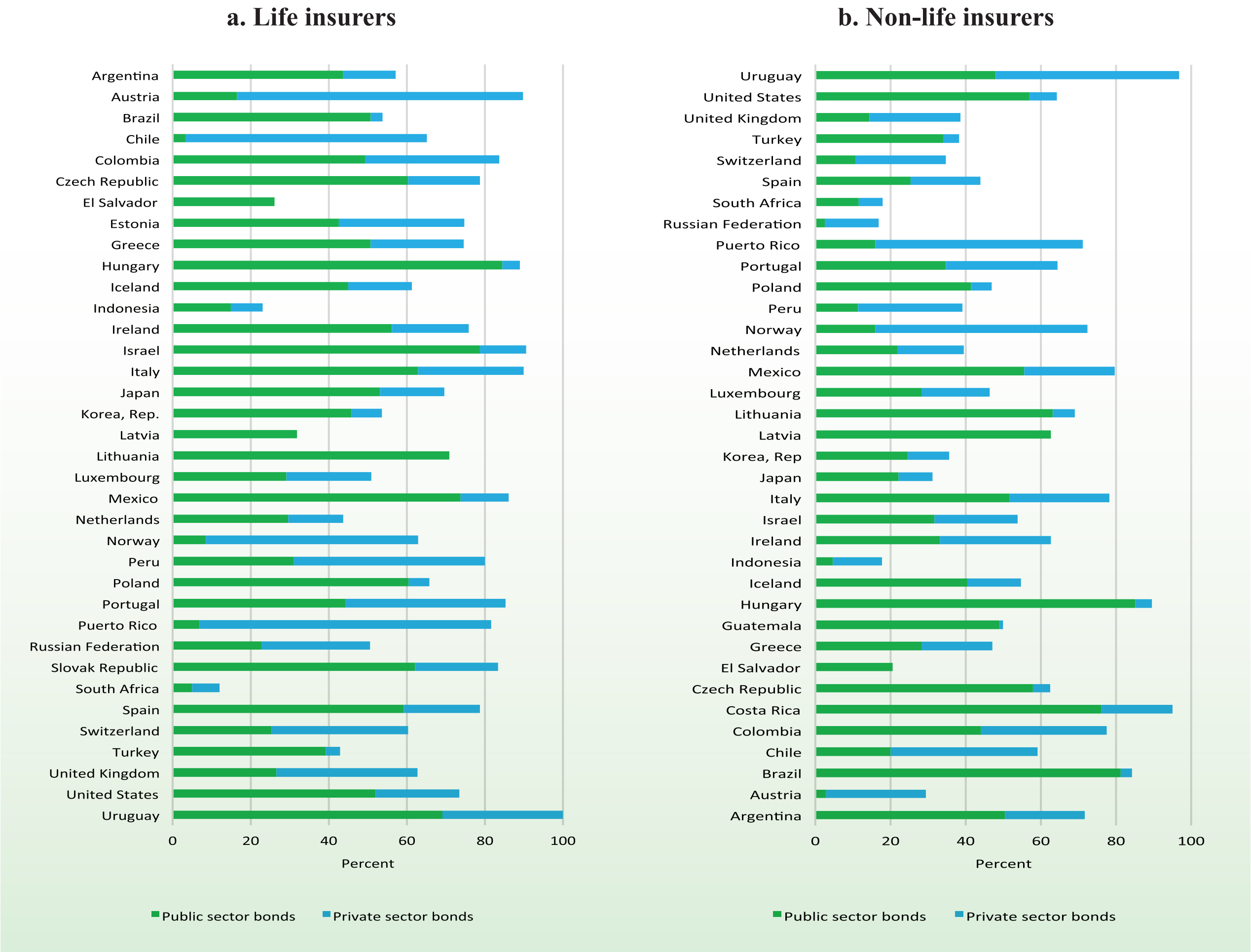
Source: OECD Global Insurance Statistics.
Note: Data exclude assets linked to unit-linked products where risk is fully borne by policyholders. The "Other" category mainly comprises loans and mutual fund investments for which no look-through was available.

there are 305 takāful providers globally, according to IFSB statistics. Of these 305, 107 provide general takāful, 57 provide family takāful, 116 provide both life and general takāful, while 25 provide re-takāful services.

Gross contributions to the global takāful industry were $25.1 billion in 2015, with a 14 percent increase as compared with the previous year, IFSB (2017) reports. General takāful contributed about 83 percent to the overall gross takāful contribution, while family takāful contributed merely 17 percent as of end-2015 (Milliman 2017). The gross premium increased to $34.38 billion in 2016. Table 3.4 shows the year-over-year growth of gross contribution by takāful operators. The Middle East and North Africa region provides the major contribution to the global gross contribution, followed by the East Asia and Pacific.

Figure 3.15 presents the growth trend in the selected indicators of takāful operators listed on the Bloomberg Takaful index. There is healthy sign of improvement in the total assets in all jurisdictions except for Malaysia, where the trend has been negative (figure 3.15, panel a). One of the possible reasons for the declining growth trend for Malaysian operators is the weakness of the Malaysian ringgit

Figure 3.14 Portfolio Allocation to Public and Private Sector Bonds, 2015
Percent of total investment



Source: OECD Global Insurance Statistics.
Note: Data exclude assets linked to unit-linked products where risk is fully borne by policyholders.

Table 3.4 Family and Non-Family Takāful Gross Premiums Written, 2015 versus 2016

Region	2015	2016
East Asia and Pacific	$4.40	$1.73
Middle East and North Africa	$20.10	$32.65
Sub-Saharan Africa	$0.60	--
Total	$25.10	$34.38

Source: For 2015, IFSB (2017); for 2016, data are for the companies listed on the Bloomberg Takaful Index.
Note: -- = not available

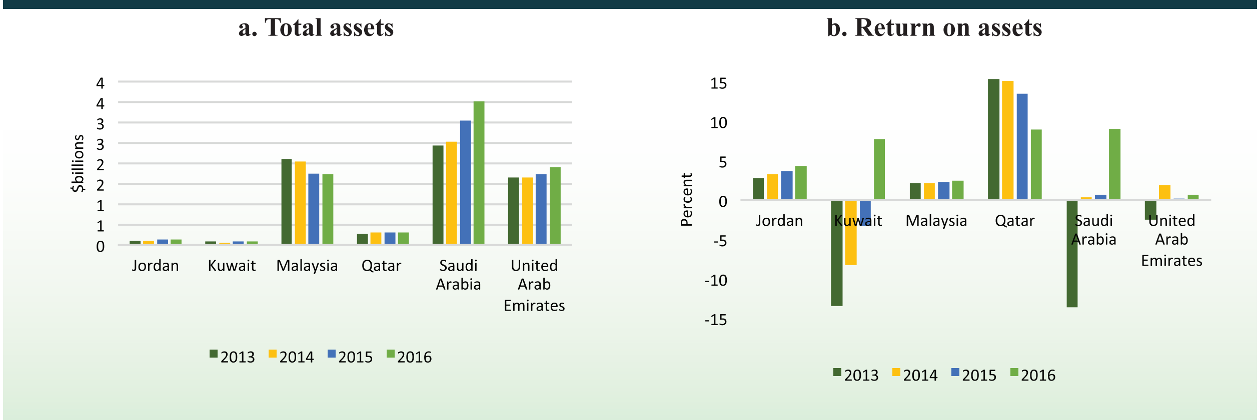
against the US dollar and decline in the sales of new automobiles (IFSB 2017). One of the positive signs for the takāful industry is the considerable improvement in the profitability of takāful operators, especially from the Middle East and North Africa region, where takāful operators from both Saudi Arabia and United Arab Emirates have positive income contributions (figure 3.15, panel a). On average, the profitability (return on assets) of takāful operators has been improving and turned positive in 2016 in all countries (figure 3.15, panel b).

Since there are no data available about the portfolio investments of takāful operators, how these operators are investing is not known. The trends in the insurance industry suggest that the investment portfolio of takāful operators is similar to the conventional insurance industry. If so, insurance companies would be more interested in the long-term sukūk, both corporate and sovereign. Due to the long-term horizon of takāful operators, life takāful, in particular can provide investment for infrastructure projects with assured revenue streams in investment grade sukūk.

3.1.4 Other Institutional Investors Pension Funds

Pension funds are important sources of capital for long-term investments due to their longer-term investment horizon. More than 90 percent of pension fund assets are concentrated in member countries of the Organisation for Economic Co-operation and Development (OECD) and are invested in the OECD (figure 3.16). Infrastructure investment by pension funds is most prevalent in Latin America and the Caribbean, but there are also some early examples in Asia and Africa. As for the role of insurance companies, there are precedents of infrastructure investments by domestic insurers in Africa, including investments by South African insurers in the Pan African Infrastructure Development Fund and the South African Infrastructure Fund (Chuckun 2010), as well as investments in telecoms equity in Cabo Verde and telecom bonds in Mozambique by

Figure 3.15 Selected Indictors of Takāful Operators, 2013–16



Source: IsDB staff compilation from Bloomberg data.

national insurers (Irving and Manroth 2009). Africa has also been a popular destination for infrastructure investments by Chinese sovereign wealth funds.

In terms of asset allocation, pension funds are more diverse and provide investment in both equities and fixed income securities (figure 3.17, panels a and b) as compared with insurance companies. In the absence of detailed information, it is difficult to ascertain the tenor of the fixed income securities or the nature of equities, whether in publicly listed companies or in private equity.

therefore considerable appetite for risks.

Private Equity Funds

Private equity funds are a rapidly growing sector, with about $4 trillion in assets. In recent years, private equity funds have earned much higher returns due to their positioning as long-term investors that are willing to put in early venture/start-up capital and hold for the longer term.

Figure 3.16 Total Investment of Pension Funds in OECD and Selected Non-OECD Countries, 2005–15

Source: IsDB staff compilation from the OECD Global Pension Statistics.
Note: OECD = Organisation for Economic Co-operation and Development.

The next four groups of asset managers are considered nonconventional or alternative investment funds.

Sovereign Wealth Funds

The largest group of alternative investment funds are sovereign wealth funds, which account for roughly $7 trillion in assets. Governments often set up sovereign wealth funds in order to earn higher returns on public savings, since they are managed outside central banks with much greater latitude in investing long term. Because sovereign wealth funds have national strategic perspectives, they are willing to take very long-term views on their investments and have

Hedge Funds

Hedge funds create more headline excitement due to their higher profile. However, their returns in recent years have not been spectacular, on average, and their holdings tend to be much more speculative and volatile because they trade opportunistically. Hedge funds hold only $2.23 trillion in assets at end of 2016.

Family Offices

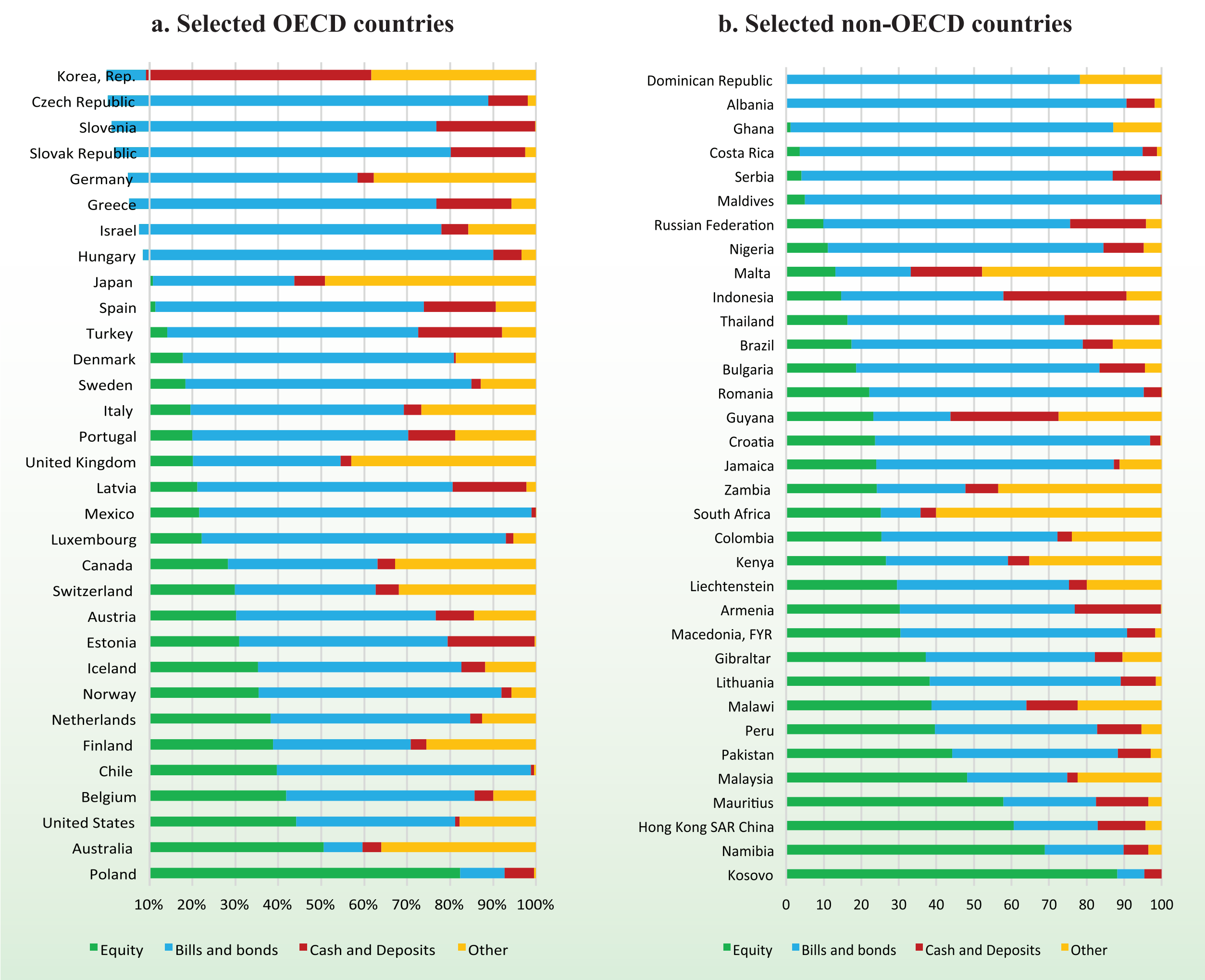
A major new source of funding is family offices, which professionally manage private wealth. The CityUK (2015) estimates that family offices hold $56.4 trillion in assets, but a considerable part is double counted as these offices also invest through professional asset managers and hold both private non-listed equity and real estate.

Awqāf (Endowment Funds)

Awqāf or endowment funds are another source of long-term investment. A waqf (Islamic endowment) is a social institution. It is central to the Islamic ecosystem. As an act of piety, a waqf provides connection between religion and economic development. Awqāf initiatives dovetail with major sectors of the economy—commercial and developmental—including real estate, education, health care, social welfare, food and water security, and climate management.

Despite their social and economic importance, the potential of awqāf remains largely unrealized because of the critical challenges of liquidity management and the shortage of viable investment opportunities. The portfolio of awqāf assets is highly imbalanced in favor of physical assets. Awqāf are rich in one of the important factors of production—land—but are short on other factors such as capi-

Figure 3.17 Pension Fund Asset Allocation for Selected Investment Categories in Selected OECD and Non-OECD Countries, 2015



Source: OECD Global Pension Statistics. For detailed notes on the compilation of data, please visit https://www.oecd.org/daf/fin/private-pensions/globalpensionstatistics.htm
Note: OECD=Organisation for Economic Co-operation and Development.

Box 3.2 Private Sector Partnership with Awqāf: The Case of the Awqāf Properties Investment Fund (APIF)

Underutilized or unutilized awqāf assets can be developed and transformed into high-yielding assets if project funding is available. The commingling of private investment capital with waqf is tolerated by Islamic jurists on the condition that such private participation is finite, for a limited period, and will not dilute the ownership of awqāf assets in any manner. Accordingly, there is need to establish a new set of Islamic financial institutions that could mobilize private investment capital that would enhance returns to the waqf (which in turn would be utilized to advance the aims of the waqif [donor] or socially beneficial objectives) and provide expected returns to the investors.

One of the earliest experiments in private sector partnership with awqāf has been the Awqāf Properties Investment Fund (APIF), which is managed by the Jeddah-based Islamic Development Bank. The Fund seeks to partner with capital providers to pool APIF's own capital resources with resources from IsDB departments and financing windows, other Islamic banks and financial institutions, conventional investors, and build-operate-transfer (BOT) operators looking for developmental opportunities. The Fund not only mobilizes capital but provides technical and design work, and revenue and ongoing property management to optimize the facilities delivered to awqāf customers and enhance the returns to investors and eventually to the beneficiaries of the awqāf.

APIF essentially looks forward to a good return on its investments. The maximum duration of the financing is 15 years, including a gestation period of three years (the construction period). The minimum amount of financing is $5 million, and the maximum is $10 million to $12 million. The mark-up, usually comprised of the London Interbank Offered Rate (LIBOR) plus spread (the premium over LIBOR that banks charge for lending), is added to the financing amount. Total mark-up usually varies between 6 percent and 7 percent. APIF seeks the following types of guarantees to mitigate risk: sovereign guarantee; bank guarantee; corporate guarantee; guarantee taken on other assets owned by the beneficiary; third-party guarantee; letter of comfort by the government;a pledge/mortgage; and/or an escrow account mechanism to collect receivables.

In principle, APIF finds all the following mechanisms acceptable for investing in the development of awqāf assets: istiṣnā‘, murābaḥah (purchase and selling of existing buildings), installment sale, leasing, diminishing participation, build-operate-transfer (BOT), and other appropriate Islamic modes of financing. However, the modes of financing mostly used by APIF are leasing and istiṣnā‘ for construction of residential buildings (high-quality service and residential apartments), commercial buildings (office blocks, commercial centers), and mixed-use development on land that is well located in city centers to maximize the return potential of the project.

APIF has effectively demonstrated that awqāf development makes good investment sense. It has shown how private investment capital may be raised by consistently providing a good return on capital. Indeed, the return on investment, at 2.5 percent per year through the last four years, has been higher than average LIBOR, hovering between 0.72 percent and 1.05 percent per year. In addition to its success in raising funds, the APIF model has also demonstrated how the modern Islamic modes of finance may be used to commingle private investment capital with waqf capital to create a win-win situation for both the investors and waqf beneficiaries. The APIF model has shown how to address some traditional objections to development of awqāf that are rooted in concerns about preservation of the endowed assets. It has effectively demonstrated that development of awqāf is the best way to preserve these assets.

Note:

a. A letter of comfort is a letter issued by a bank or the government on behalf of their client /buyer who enters into a contract to procure a large quantity of goods/merchandise from a seller confirming their financial ability to fulfill their commitment as per the agreement.

tal, labor, and organization. To date, large parcels of awqāf land have remained undeveloped due to lack of sufficient funds and entrepreneurial initiatives. This calls for a strategic cooperation between awqāf and the private sector, which can bring in capital and enterprise.

Companies in the private sector are attracted to awqāf projects because of the business opportunities they represent. Private sector firms also see these projects as a way of discharging their corporate social responsibility. There have been some excellent cases of partnerships between the private sector and awqāf (see box 3.2).

Notwithstanding the possibilities of private sector and awqāf collaboration, the idea of partnership between the two sectors faces many challenges. One reason why such partnerships have yet to catch the fancy of the private sector is perhaps the Sharī'ah restrictions on pledging of awqāf assets. Another reason is that awqāf organizations as charitable institutions are perceived to lack the organizational discipline of the corporate world.

Partnerships between awqāf and the private sector are more like "marriages of convenience," where each party expects the relationship to realize some benefits by leveraging on the other. Each party has its goals and metrics that drive it. Awqāf's commercial strategies are more about development and social impact. Business activities are undertaken to support their mission. The ultimate goal of awqāf is not financial, and making money is more of an outcome than a purpose. Companies, on the other hand, are concerned with maximizing profits and increasing shareholders' values. The potential risks associated with awqāf projects reduce their appeal to the private sector. Awqāf properties cannot be used as collateral, and in the event of a dispute, awqāf may have an edge over the private sector, particularly in the area of "business versus charity." These are areas of concern to companies that may feel that the playing field is tilted in awqāf's favor.

Box 3.3 A Blended Finance Approach to Long-term Financing

The concept of blended finance has been gaining popularity in the world of development finance. It aims to merge development institutions, philanthropic entities, and profit-seeking investors by combining their funding and putting it into work in a way that can contribute to the UN's Sustainable Development Goals. For development funders, blended finance can provide access to new capital sources for high-impact sectors, as well as the opportunity to leverage private sector expertise to develop products, services, and infrastructure (WEF and OECD 2015).

Supporting mechanisms are used to engage private sector investment in development projects to address funding gaps and manage risks. These mechanisms are structured to provide technical assistance (to reduce transaction costs and operational risks); risk underwriting (to lower the specific risks linked to a transaction and protect the investor against risks and financial losses in a negative event); and market incentives (to encourage financing in new and distressed markets by providing fixed pricing for products and offtake guarantees contingent on performance and/or guaranteed payments to ensure the commitment of the private sector). To ensure the commitment of the private sector, blended finance also offers market incentives to encourage financing in new and distressed markets by providing fixed pricing for products and offtake guarantees contingent on performance and/or guaranteed payments (WEF and OECD 2015). For example, GuarantCo, which is sponsored by governments, supports infrastructure investments in low-income countries by taking on the specific risks of a project. For every dollar it invests, $13.50 of private money is attracted. In 2014 GuarantCo helped Mobilink, a telecoms firm, by guaranteeing part of an Islamic bond for the firm to expand into remote areas of Pakistan (Economist 2016).

While blended finance is a new trend and faces several challenges, it has a promising future. It has the potential to engage the private sector and become a systemic approach to overcome the shortages in long-term financing and make significant contributions to achieve development goals.

Both awqāf and the private sector have a lot to learn from each other. Awqāf can adopt many of the corporate governance practices of the commercial world, especially in the areas of accountability and transparency. Reciprocally, the private sector can learn from awqāf that there are values in business other than just financial ones. The private sector can learn from awqāf commitment, dedication, social responsibility, and long-termism and engage in impact investments that combine social objectives with profitability.

3.1.5 Investment with the Voluntary Sector: Blended Finance

Even though private investors are increasingly attracted to developing and emerging markets because of their high growth rates and huge returns on investments, they typically avoid investing in these markets as the risks are too much for the private sector to tolerate. To overcome these issues, blended finance aims to utilize public or charitable funds to allow private capital to flow into places that it would normally shy away from (Economist 2016). Blended finance encourages "the strategic use of development finance and philanthropic funds to mobilize private capital flows to emerging and frontier markets" (WEF and OECD 2015).

Some $25.4 billion is already invested in more than 74 blended finance funds and facilities, in addition to hundreds of projects that are receiving blended finance in emerging and frontier markets, according to a survey conducted by the World Economic Forum. This substantial commitment indicates that blended finance can have a major positive impact in mobilizing private capital for projects in sectors that are critical for development and suffer from lack of funding (WEF and OECD 2015).

Islamic finance is well suited to blended finance projects because the foundation of Islamic finance structures is their asset-backed nature along with the notion of risk sharing. In addition, Islamic finance focuses on promoting social and economic development by utilizing real assets. In this context, blended finance projects have several commonalities with Islamic finance practices. Financing these projects entails a certain level of risk sharing with other project parties, and the projects serve the larger purpose of social and economic development by creating essential assets in the public interest. These factors are conducive to deploying Islamic finance to blended finance and thus ensuring sustainable long-term investment financing and contributing to economic development.

Box 3.3 explores blended finance in more detail and explains how it can be used to meet long-term investment needs to achieve the Sustainable Development Goals.

3.1.6 FinTech for Long-term Islamic Finance

The world has moved on from barter to bitcoins. In a parallel fashion, Islamic scholarship has progressed from seeking to explicate ribā-al-fadl (a difference in exchanging two similar commodities) in the context of barter transactions to a discussion of "smart" contracts, DAOs (decentralized autonomous organizations), block-chains, crypto-currencies, crowd funding, and what-have-you in the new and emerging world of FinTech. This section focuses specifically on the impact of FinTech on long-term Islamic finance.

Smart Contracts and DAOs

The rationale behind the concept of smart contracts makes enormous sense to an Islamic economist. The original goal behind the idea (Szabo 1996) was to apply the principles of traditional contracting and related business practices to the design of electronic commerce protocols between multitudes of unknown parties on the internet. The author(s) of this concept felt that specification through clear logic, and verification or enforcement through cryptographic protocols and other digital security mechanisms, could constitute a major improvement over traditional contract law in protecting the rights and obligations of parties.

A smart contract is a computerized transaction protocol that executes the terms of a contract. The general objectives are to satisfy common contractual conditions (such as payment terms, liens, confidentiality, and enforcement); minimize exceptions, both malicious and accidental; and minimize the need for trusted intermediaries. Related economic goals include lowering loss from fraud, the costs of arbitration and enforcement, and other transaction costs.

Arguably, smart contracts are closer to Islamic contracts, with an undiluted focus on avoidance of any kind of uncertainty regarding settlement of the contracts. Islamic contracts that take the form of self-executing digital or smart contracts, with "electronically coded" terms, could sharply reduce the element of gharar (uncertainty) in contracting between unknown parties that meet on the internet. The contractual terms execute only if the conditions are met. This feature automates the entire contractual process for Islamic institutions. The Islamic contracts would now be easy to verify, as well as being immutable and secure, mitigating gharar in the form of operational risks arising from settlement and counterparty risks. Gharar in the form of administrative and legal complexities and redundancies would also be mitigated.

They also could reduce the transaction costs of Islamic contracts. Unlike a conventional loan agreement, which requires a single contract between the financier and the borrower, Islamic finance leverages on a wide range of contracts, such as profit-sharing agreements, partnerships, and agency arrangements involving multiple parties. Critics of Islamic finance often underline the higher administrative and legal costs associated with its composite products requiring multiple contractual arrangements. Islamic finance is seen to impose an incremental cost on the economy. However, the self-executing smart contracts resolve this precise problem, as explained.

An extension of smart contracts is the concept of the decentralized autonomous organization (DAO). A DAO is an organization that is run through rules encoded as computer programs or smart contracts. A DAO's financial transaction record and program rules are maintained on a blockchain. In theory, there are several examples of this business model. In practice, the precise legal status of this type of business organization is unclear. However, a DAO may take the structure of a general partnership or mushārakah, while functioning as a corporation without legal status.
Smart contracts and DAOs use blockchain technology. Therefore, it is important to examine blockchain technology to underline the relevant issues from the Islamic point of view.

A blockchain essentially facilitates the transfer of value or data without the need of a central authority or third party. It is a decentralized digital ledger that records transactions chronologically and publicly, allowing anyone to verify and access the data. The original application of blockchain was bitcoin, a decentralized digital currency that allows money to be sent from anywhere in the world at little to no cost, with no banks or third parties involved in the transaction. A blockchain can cater to any form of transactions involving value such as money, property, and goods. For example, in principle, the blockchain data could, if regulatory structures permitted, replace public documents such as deeds and titles. Thus, a smart long-term ijārah-thummul-bay‘ (lease-purchase contract) could become a self-paying and self-executing instrument by using the bitcoin blockchain and automating the periodic payment streams, as well as automatically changing the title of leased assets at the end of lease period. Compared to its equivalent conventional financial instrument for raising long-term finance, this smart contract has clear advantages that includes minimizing counterparty risk, reducing settlement times, and increasing transparency.

Blockchain is relatively secure for the following reasons. First, it uses cryptographic techniques backed by complex mathematical algorithms to verify and secure the data. Second, it is much harder to hack a decentralized network than a centralized system with a single point of failure. Further, the longer the blockchain extends, the higher the level of security. This is because a tremendous amount of computing power is required to "hack" or alter the information in the blocks. Proponents assert that the features of immutability and transparency of the blockchain process remove the possibility of fraud and theft. Nonetheless, the potential of technology is also fraught with grave risks, at least until society has a good understanding of its uses and abuses, throwing the game back into the domain of prohibitive gharar or excessive complexity. What are believed to be the strengths of blockchain technology—immutability and transparency—may quickly turn into the gravest vulnerabilities. If there are security holes in the code that are now visible to all but difficult to alter, it will rule out fixing bugs unless a moratorium is called for that purpose. A prominent example is the well-documented case of the maiden DAO, which raised the largest amount of equity capital in the history of mankind through crowd-funding, but also had several problems with the code that led to financial losses and raised concerns about the process.

Digital Currencies

The development of blockchain technology is concurrent with the introduction of cryptocurrencies, such as bitcoins. Such currencies have steadily gained popularity as modes of payment and alternative forms of investments. From an Islamic point of view, cryptocurrencies involve multiple issues. For some observers, cryptocurrencies are perhaps better than fiat money that is dependent on the whims of governments. Under the fiat monetary system, governments and banks can create money out of thin air and inevitably lead to a debt-laden economy. This is not so with cryptocurrencies. Mining or production of cryptocurrencies like bitcoins require massive efforts and resources, where individuals or entities use sophisticated computer equipment and software to solve complex mathematical problems with cryptography. This process results in ensuring the security of the entire network, while creating of cryptocurrency supply as legitimate reward for miners' efforts. To others, the Sharīʻah justification for fiat money comes from the backing of the government. In addition, some scholars raise concern that the current operation of cryptocurrencies leads to the doubts about the violation of Islamic finance principles prohibiting to involve excessive risk and uncertainty (gharar) and to exploit the lack of knowledge (jahalat) . It is worth noting that the highly speculative nature of these innovation at the present undermines its claim to be a legitimate means of exchange. Thus, cryptocurrencies will perhaps have limited relevance as payment systems in Islamic finance.

Crowdfunding

Perhaps the oldest kids in the block, crowdfunding platforms have proliferated rapidly across conventional and Islamic domains, gaining significance in the for-profit (debt, equity, leasing), public, and voluntary, not-for-profit segments of the financial system, linking up governments, institutions and individuals. The uniqueness of crowdfunding platforms however, lies in their role in linking individual donors/ lenders/investors with individual beneficiaries/borrowers/project sponsors—so-called person-to-person (P2P) financing. Broadly, there are four types of crowdfunding platforms.

P2P lending platforms offering this service act as an intermediary between borrowers and potential lenders. The initial models of such financing have been more benevolent in nature: that is, they are devoid of any returns for the lenders (even though the borrower sometimes must pay the cost of administering the loan, often to entities acting as the second-level intermediaries). There are formidable players in this segment, such as kiva.org, that have been considered as ideal and replicable models for Islamic qarḍ ḥasan providers. P2P lending platforms in the conventional domain have been able to provide lenders with above-market returns, though at a higher level of default risk.

Charity or donation-based crowdfunding platforms have been particularly proactive in the Islamic domain seeking to connect donors with beneficiaries. Since Islamic charity comes in many forms, such as zakāt, ṣadaqāt, and cash waqf, the P2P platforms commit themselves to adhere to the rules of the Sharīʻah governing such benevolent action. Such platforms are widely believed to lead to better Sharīʻah compliance, improved governance, and good practices in management of zakāt, ṣadaqāt, and awqāf. Platforms have lower operational and administrative costs associated with the processes of mobilizing and channeling funds than traditional charities as intermediaries. They enhance transparency and good governance by ensuring that funds indeed flow to beneficiaries/projects as intended by the donor(s). Overall, the result of such intervention is believed to enhance both the efficiency and effectiveness of the institution of charity in Islam.

Reward-based crowdfunds, which are usually P2P counterparts of venture capital funds, have been quite successful in attracting lenders, investors, and donors in both Islamic and conventional domains. They have been largely successful in convincing policy makers across the globe about their unique role in connecting high-risk first-generation entrepreneurs—people with winning ideas but little capital—with the crowd that goes on to fund the ideas.

The authors of ideas usually promise to reward their backers, in the case of success, by giving gifts and rewards.

Equity-based P2P crowdfunding platforms permit companies—usually start-ups and small companies—to raise capital from the public. Usually, these platforms are subject to regulation by capital market regulatory bodies. Regulations specific to Sharīʻah-compliant equity crowd-funding platforms have been formulated in countries like Malaysia and the United Arab Emirates.

3.2 Challenges in Mobilizing Islamic Finance for Long-Term Investments

Islamic finance is well-suited for funding long-term investment that supports broader goals of serving the economy, society, and the environment (impact investment) because of its emphasis on materiality, property rights, risk sharing, and value-addition. In a 2014 Occasional Paper (Ali and IsDB Staff Team 2014), the Islamic Research and Training Institute (IRTI) identifies several challenges to attaining long-term financing for the development of various economic sectors and recommends various policy measures to promote Islamic finance (see the final section of this chapter and table 3.5). IRTI (2014) identifies the main challenges in achieving the Islamic finance potential to be the dominance of the Islamic banking subsector; the lack of prerequisites for risk-sharing-based Islamic finance; market failures and policy distortions; lack of awareness of the full cost of risk transfer; and underutilization of the Islamic social sector. The paper suggests that development of a robust financial sector is a prerequisite for long-term financing.

3.2.1 Dominance of the Islamic Banking Subsector

Islamic banking constitutes the lion's share of Islamic finance assets globally and is exposed to the same issues of deleveraging and regulatory-induced short-termism as its conventional counterpart. Islamic banking has gained traction in 50 Muslim and non-Muslim jurisdictions around the world (BNM 2017). However, the development of Islamic finance as an industry has been lopsided, focusing mainly on short-term banking products that serve the lower end of the risk-return profile and ignoring its salient risk-sharing proposition. An empirical investigation of the Islamic banking industry in Malaysia, for example, finds the incumbent banks to be overly reliant on short-term deposits in their funding of long-term assets, the majority of which represent low value-added household financing (Lajis et al. 2016). Islamic banks, in general, are characterized by high asset concentration in the real estate and commodity sectors. More importantly, the close resemblance to the conventional "lend long, borrow short" strategy is not unique to Malaysia's Islamic banking. After all, the current formation of Islamic banking has grown out of conventional banking and uses many of its techniques and instruments. As a result, there is a dichotomy between the theory and practice of Islam banking that challenges attainment of its value proposition. The empirical evidence of risk shifting by Islamic banks in a sample of OIC member countries stands as further testimony to this challenge (Alaabed, Masih, and Mirakhor forthcoming).

3.2.2 Lack of Prerequisites for Risk-sharing–based Islamic Finance

As discussed, a number of prerequisites are needed to guarantee full operationalization of risk-sharing based finance as a sustainable source of long-term impactful investments. These include well-functioning institutions and rules of behavior that protect investors, creditors, and property rights; trust in government and institutions; rule of law; good governance; and a developed financial system. Unfortunately, these prerequisites are at best partially met in the majority of OIC member countries (Mirakhor and Askari 2010). The current state of affairs in the contemporary Muslim world reveals numerous impediments (Al-ʻAlwani 1993). Weak institutions, poor contract enforcement, and suboptimal levels of social capital are just a few (Ng 2014). These impediments have hindered the development of truly risk-sharing Islamic banking and finance thus far. The underdevelopment of Islamic capital markets (equity and sukūk markets) is another challenge that undermines an important channel through which long-term investment financing is normally provided. Stock markets are almost nonexistent in most

Muslim counties. Where they exist, they are plagued with informational problems and governance issues (Askari et al. 2012; Mirakhor and Askari 2010; Iqbal and Mirakhor 2011; Chapra and Khan 2000). As financial systems develop, the maturity structure of finance is expected to lengthen and sources of funding to become more diversified, among others (Demirgüç-Kunt and Maksimovic 1999, 2002).

3.2.3 Market Failures and Policy Distortions

The current regulatory and supervisory framework is geared toward risk transfer (Kammer et al. 2015; Lajis 2015). This is in part an unintended consequence of harmonizing efforts that were aimed at minimizing regulatory arbitrage and ensuring a level regulatory robustness in dual banking systems of OIC member countries. As a result, legal, administrative, economic, financial, and regulatory biases that favor risk-transfer–based debt instruments persist, placing risk-sharing–based long-term finance at a disadvantage. The adoption of Basel capital adequacy requirements for Islamic banking, for example, acts as a disincentive in the use of risk-sharing–based contracts of muḍārabah and mushārakah in banks' financing.

3.2.4 Lack of Awareness of the Full Cost of Risk Transfer

Part of the challenge lies in the lack of awareness of the huge opportunity cost imposed by risk-transfer– based contracts. In the Islamic banking context, both investment account holders (depositors) and the Islamic financial institutions share in a huge upside potential of risk-sharing–based real-sector financing. In a recent study, Lajis, Bacha, and Mirakhor (2016) estimated the rate of return on long-term assets to be 20.98 percent in Malaysia, implying an opportunity cost to investors and Islamic banks that is at least three times the return generated from debt-based financing (averaging 6–7 percent at the time of the study). In the study, risk sharing was also found to be more resilient to shocks as compared to its risk-transfer counterpart.

3.2.5 Underutilization of the Islamic Social Sector

For centuries, the Islamic social sector, comprising redistributive instruments such as zakāt, qarḍ ḥasan, awqāf, and ṣadaqāt, has played a vital role in socioeconomic development. Such instruments can potentially bridge the gap in long-term impact investments. The instrument of awqāf (Islamic endowments or trusts), for example, is ideal for the creation and preservation of assets that can ensure a flow of resources to support the provision of education, health care, and other social goods. Despite the huge potential and promising creative experiments using zakāt and ṣadaqāt to support community-driven development and providing affordable health care through corporate waqf, these instruments remain largely dormant. There is a need to revive them and institutionalize them to yield optimal benefits. The problem is in part a coordination failure given the nature and size of small individual contributions.

3.3 Challenges in Using Islamic Finance for Economic Development

The experience of development financing activities in many countries demonstrates that the quality of institutions matters—and matters a great deal—for the effectiveness and success of Islamic finance in any economic subsector. Institutional quality, as characterized by good governance, rule of law, accountability, and political stability in the country where the projects are located, largely determines the success or failure of financing. The effects of bad institutional quality dwarf any differential advantage of Islamic contract types and financial modes. To separate out the effect of contract type (or mode of finance) on the success and failure of Islamic finance, micro, contractual, and institutional quality data would be required to control for this effect within the subsector under study. A separate study along these lines would be needed.

Moreover, different economic sectors pose different challenges and provide varying prospects for Islamic finance. The IRTI Occasional Paper (Ali and IsDB Staff Team 2014) highlights the use of Islamic finance in the important economic subsectors of food and water security, infrastructure, and energy services, education, housing, international trade, and the Islamic financial sector for socioeconomic development (see table 3.5).

Table 3.5 Challenges to and Prospects for the Use of Islamic Finance in Selected Important Economic Subsectors in OIC Member Countries

Sector	Challenges	Prospects
Energy and infrastructure	• Lack of transparency, good governance, and effective regulatory infrastructure to support private capital investment and to provide legislative protection for investors especially under PPP projects. • Unavailability of legal framework for trust laws and handling private trust ownership of sovereign assets. • Lack of political will to support and plan measures to make the sector profitable and promote its development. • Political risk.	• This sector is not a quick win. • Lack of adequate energy services to support economic progress. • Fiscal constraints. • Inefficient domestic capital markets. • Lack of enabling measures to attract investors. • Difficult policies for banking transactions. • Persistent regulatory issues.
Food and water security	• Lack of development of input markets, output markets, rural infrastructure (including water and sanitation) and services, and logistics and storage (including trade infrastructure). • External financing is constrained by lower return on investments, high political risk, tight fiscal limits of donor governments, the absence of ready projects with track record of measurable results (success), and the lack of institutional infrastructure to implement projects. • Presence of subsistence farming in many low-income countries and correlated risks in agricultural financing discourages banks from increasing their agricultural portfolio. • Lack of political will to support and plan measures to make the sector profitable and promote its development due to the public-good nature of many investments in this sector. Impediments include the free-rider problem, weak land titling, presence of large land holders, weather and crop price risks. • Requires good governance and regulations.	• Risk sharing under Islamic financing modalities allows greater efficiency in resource allocation and better prospects for improved sustainability of investments. • Significant impact on poverty through the financial inclusion of observant Muslims, who constitute much of the population of Muslim-majority countries. • Diversity of contracts offered by Islamic financing can boost investment in agriculture through effective sharing of risks and profits.
Education	• Underinvestment in education by the private sector.	• *Awqāf* (religious endowments) can provide funding to build infrastructure and provide social services, including education. • Resources generated from *zakāt* and *awqāf* could be used to offset the direct and indirect costs that cause large number of students to drop out or never enroll in school. In particular, *zakāt* revenues could be used as targeted stipends to poor households to offset the income lost when children attend school or to pay tuition fees.

table continues next page

Table 3.5 Challenges to and Prospects for the Use of Islamic Finance in Selected Important Economic Subsectors in OIC Member Countries *(continued)*

Sector	Challenges	Prospects
Housing	• Three specific issues in the housing sector must be addressed by the financing models: the availability of institutional finance; the fostering of long-term finance; and clear funding criteria. • Registration and title transfer of land are cumbersome in most OIC member countries. These issues, along with the weak legal system, pose a challenge to housing finance at affordable prices. • The nonavailability of credit information is another constraint on the housing finance. • To support providers of primary housing finance and solve their liquidity problem, not only do long-term financing institutions need to participate, but a well-developed secondary market is also required. However, this industry is not well developed in OIC member countries. • Product diversification is minimal. Most financing companies offer similar products.	• Given the current institutional development, *mushārakah mutanāqaṣah* is an ideal mode for affordable housing. However, this contract must be used in conjunction with a suitable business model that could reduce information asymmetry between the financier and the financed. • Information asymmetry could be reduced through a cooperative or compulsory saving model, or employer housing finance schemes. • Real estate investment trusts (REITs) can be used to finance higher-end housing and commercial projects.
Islamic financial sector development	• Adequate human capital and skills are lacking in many areas of Islamic finance. • Product standardization and documentation is needed to reduce transactions costs and alleviate costs of asymmetric information among the transacting parties. • The development and adoption of the overall corporate governance framework, regulatory standards, and accounting principles are needed to ensure fast growth of Islamic finance. • A variety of products and institutions need to be created to cater to the needs of various segments of society and various kinds of businesses • Liquidity management mechanisms and mechanisms for banking support in case of distress and crisis need to be developed. • Monitoring of the projects is important for success.	• Islamic finance can support infrastructure projects through private, public, and voluntary (*waqf* and charity) sectors. • Non-interest–based financing has played a very important role in capturing market share (a case in point is the 14 jurisdictions where Islamic banking has become systemically important) and could play a substantial role in the economic development of the countries. • Many Muslims as well as non-Muslims are investing in the Islamic financial sector because of its great outcomes. There is a large pool of saving to support Islamic financial services. • Islamic modes of financing can be used for short-, medium-, and long-term financing projects. • Product diversity can enhance financial inclusion. • Islamic finance can benefit from both scale and scope economies. • Islamic finance can actively facilitate cross-boundary investments.

Source: Ali and IsDB Staff Team 2014.
Note: OIC = Organisation of Islamic Cooperation.

Notes

[1] The 2016 figures are based on 40 listed global takāful operators listed on Bloomberg Takaful Index and may not reflect the actual status of the takāful industry.

[2] For a detailed discussion on sovereign wealth funds, see chapter 5.

[3] http://www.eurekahedge.com/NewsAndEvents/News/1613/Hedge-Fund-Report-January-2017.

4 The US Securities Exchange Commission recently has deemed some similar approaches to be illegal offers of unregistered securities.

5 This will imply unlimited legal liability for participants, even if the smart contract code or the DAO's promoters say otherwise. Another issue with DAOs relates to the participation of shareholder/partners in considering alternative proposals, which can be problematic and time consuming.

6 In mid-June 2016, a specific DAO, The DAO, set a record for the largest crowdfunding campaign to date. However, multiple issues in the code of The DAO were identified subsequently. The operational procedures for The DAO enabled an attempted large withdrawal of funds from The DAO. The original contract was later bailed out with the consensus of the community, but only at a financial loss to The DAO and a credibility loss to the concept.

7 Islamic banking has reached a level of systemic importance, representing more than 20 percent of the country's total banking industry.

8 At approximately 80 percent of total deposits.

9 As of January 2014, 21 of the world's 48 least developed countries were members of OIC (UNCTAD 2014). Only 66 percent of small businesses and 78 percent of medium-size businesses in developing countries have any form of long-term liabilities, compared with 80 percent and 92 percent in high-income countries, respectively (World Bank 2015).

10 The estimate is based on the return on long-term assets of 424 shari'ah-compliant companies listed in Bursa Malaysia.

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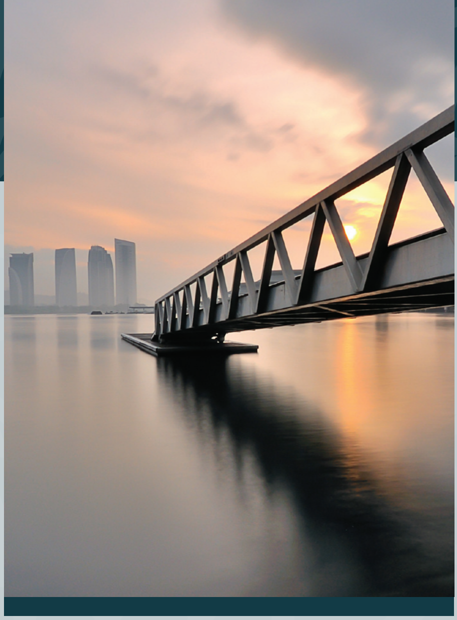


Chapter 4
Policy Response to Development of Islamic Financial Industry for Long-Term Financing

4.1 Introduction

Two broad categories of factors affect long-term financing: the macro-level environment and micro-level financial institutions and instruments. At the macro level, an enabling legal and regulatory regime is necessary to reduce uncertainty and provide protection of property and investors rights. At the micro level, the organizational type and instruments offered determine the extent to which long-term financing needs are met. This chapter discusses the status and developments in the legal and regulatory regimes with respect to the Islamic financial sector and then presents some specific issues related to long-term financing in Islamic financial institutions. The developments in the legal and regulatory environments are discussed in light of the policy recommendations of the Ten-Year Framework and Strategies presented by the Islamic Training and Research Institute (IRTI) and Islamic Financial Services Board (IFSB) in their 2007 report on the development of the Islamic financial services industry (IRTI and IFSB 2007), and their Mid-term Review (MTR) in 2014 (IRTI and IFSB 2014). Finally, the chapter provides the key policies at the macro and micro levels that can promote long-term financing by Islamic financial sector.

4.2 Developments in the Legal and Regulatory Regimes for Islamic Finance

Islamic Financial Services Industry Development: Ten-Year Framework and Strategies 2007 (IRTI and IFSB 2007) emphasizes the role of a supporting legal and regulatory framework for the development of an efficient, sound, resilient, and sustainable Islamic financial services industry that can support economic development and poverty alleviation. The recommendations in the document, along with the Mid-term Review 2014, identify developments in national plans and strategies, the legal and regulatory frameworks, the Sharī‘ah governance regime, liquidity infrastructure, and deposit insurance schemes, among others, as key to promote a robust Islamic financial services industry. Before discussing the specific status of some key legal and regulatory infrastructure institutions in these areas in a sample of countries, the chapter presents an overview of the overall status of the business and regulatory environment in the member countries of the Organisation of Islamic Cooperation (OIC).

Table 4.1 shows the overall status of the legal rights and the business regulatory environment in OIC member countries relative to a benchmark year. The table shows that the legal rights status of the majority of OIC member countries in 2016 remained un-changed compared to 2013, with improvements in a few counties and deterioration in the case of Albania. While the overall average of the legal rights index for the OIC member countries in 2016 (4.08) is better than in 2013 (3.55), it is lower than the world average of 5.20.

Information on the business regulatory environment for 2015 is not available for many OIC member countries. Though most of the countries show no changes in the regulations since 2012, a few countries show improvement, while in others the regulatory environment has deteriorated. Overall, the average for the OIC member countries for the regulatory environment, with a rating of 3.14, indicates a slight deterioration from 2012. However, the average for OIC appears to be better than that of world average.

The last column in table 4.1 shows the Doing Business (Distance to Frontier) scale for OIC member countries in 2017 relative to 2012. A majority of the countries (34) improved during that time, while 20 countries deteriorated. The average scale for OIC member countries improved marginally from 53.36 in 2012 to 53.76 in 2017.

Table 4.1 Overall Legal and Regulatory Status in OIC Member Countries

Country/Economy	Legal Rights Index 2016 (and change from 2013)	Business Regulatory Environment Rating 2015 (and change from 2012)	Doing Business (Distance to Frontier) 2017 (and change from 2012)
Afghanistan	9	2.5	38.1
Albania	7	-	68.9
Algeria	2	-	47.76
Azerbaijan	2	-	67.99
Bahrain	1	-	68.44
Bangladesh	5	3	40.84
Benin	6	3.5	48.52
Brunei Darussalam	5	-	65.51
Burkina Faso	6	3.5	51.33
Cameroon	6	3	45.27
Chad	6	2.5	39.07
Comoros	6	3	48.69
Côte d'Ivoire	6	3	52.31
Djibouti	1	2.5	44.5
Egypt, Arab Rep.	2	-	56.64
Gabon	6	-	45.88
Gambia, The	8	3.5	51.7
Guinea	6	3	46.23
Guinea-Bissau	6	2.5	41.63
Guyana	3	3	56.26
Indonesia	6	-	61.52
Iran, Islamic Rep.	2	-	57.26
Iraq	1	-	45.61
Jordan	-	-	57.3
Kazakhstan	4	-	75.09
Kuwait	2	-	59.55
Kyrgyz Republic	8	4	65.17
Lebanon	2	-	55.9
Libya	-	-	33.19
Malaysia	7	-	78.11
Maldives	2	3.5	53.94
Mali	6	3.5	52.96
Mauritania	2	3	47.21

table continues next page

Table 4.1 Overall Legal and Regulatory Status in OIC Member Countries *(continued)*

Country/Economy	Legal Rights Index 2016 (and change from 2013)	Business Regulatory Environment Rating 2015 (and change from 2012)	Doing Business (Distance to Frontier) 2017 (and change from 2012)
Morocco	2	-	67.5
Mozambique	1	3	53.78
Niger	6	3.5	49.57
Nigeria	7	3.5	44.63
Oman	1	-	67.73
Pakistan	3	3	51.77
Qatar	1	-	63.66
Saudi Arabia	2	-	61.11
Senegal	6	4	50.68
Sierra Leone	5	3	50.23
Somalia	-	-	20.29
Sudan	3	3	44.76
Suriname	2	-	47.28
Syrian Arab Republic	1	-	41.43
Tajikistan	1	3	55.34
Togo	6	3	48.57
Tunisia	3	-	64.89
Turkey	3	-	67.19
Turkmenistan	-	-	-
Uganda	6	4	57.77
United Arab Emirates	2	-	76.89
Uzbekistan	6	3	63.03
West Bank and Gaza	-	-	53.21
Yemen, Rep.	-	2.5	39.57
Average OIC	**4.08**	**3.14**	**53.74**
World	**5.20**	**3.10**	**60.9**[a]

Source: World Bank World Development Indicators and Doing Business.
Note: Strength of legal rights index (0=weak to 12=strong); CPIA business regulatory environment rating (1=low to 6=high); Doing Business (Distance to Frontier) scale of 0 to 100, with 0 representing lowest performance and 100 representing the frontier.
a. The average distance to frontier for the world is for 2017. World data for 2012 are not available. Thus the improvement or deterioration cannot be ascertained and no color can be assigned.

Improved
No Change
Deteriorated

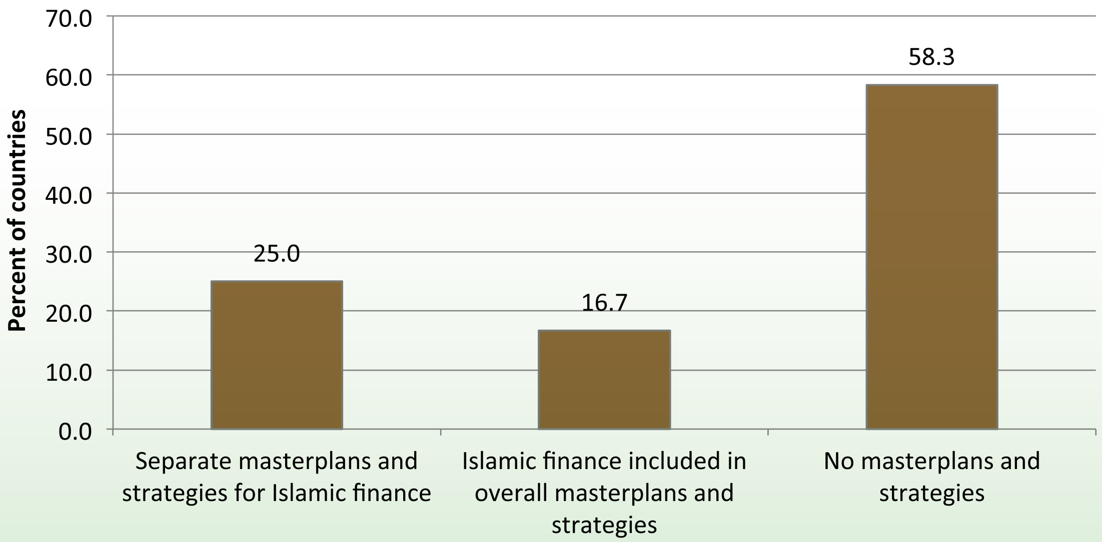
4.3 Status and Developments in Legal and Regulatory Environment Related to the Islamic Financial Services Industry

Drawing on the preceding discussion, this section presents the results on the status of different legal and regulatory infrastructure institutions for a sample of 12 OIC member countries (Bangladesh, Arab Republic of Egypt, Indonesia, Malaysia, Nigeria, Oman, Pakistan, Saudi Arabia, Senegal, Sudan, and United Arab Emirates). The countries provide a good representation of the different geographical regions and the levels of developments of the Islamic finance sector. The status of various aspects of the legal and regulatory framework for the Islamic financial services industry identified in the Medium-Term Review 2014 are presented next.

National Plans and Strategies

Recommendation No. 14 of the MTR recommends the following: "Develop an understanding of the linkages and dependencies between different components of Islamic financial services to enable more informed strategic planning to be undertaken." Un-

Figure 4.1 Countries with a National Strategic Framework for Islamic Finance



der the implementation plan for this recommendation, the MTR 2014 (page 115) identifies a key role of governments and regulators to "develop national plans for the holistic development of the industry, with due consideration to all components." It adds, "Given the nascent nature of the Islamic financial sector in many countries, introduction of national Master Plans can provide a strategic framework for the development of the industry in different countries. The Master Plan should identify the areas that need to be strengthened for a healthy and balanced growth of the Islamic financial sector" (MTR 2014, 120).

Figure 4.1 shows that only 25 percent of the countries in the sample have specific masterplans and strategies for the development of the Islamic finance. Further, 16.7 percent of the countries have included development of Islamic finance in their overall plans and strategies to develop the financial sector. The majority of countries (58.3 percent) do not have any strategic plans for developing Islamic finance.

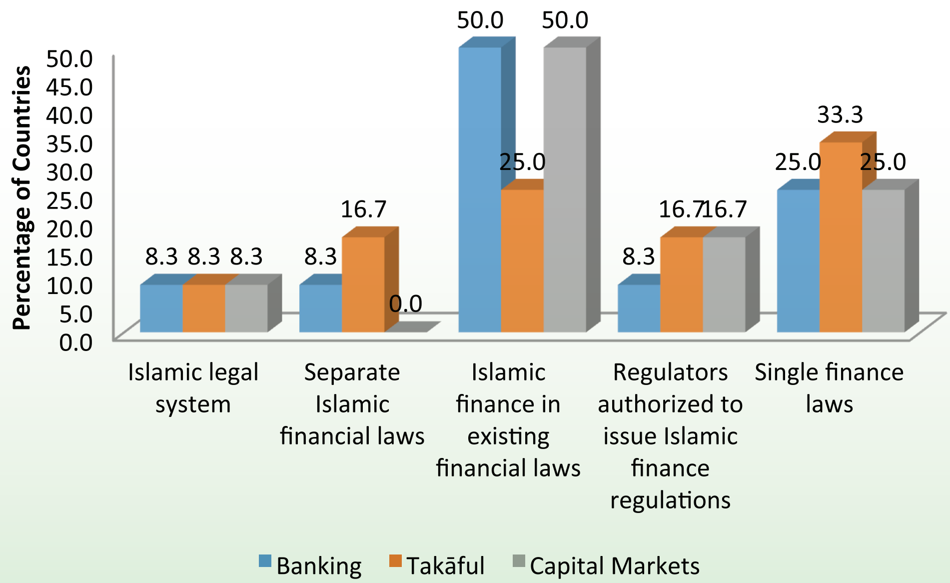
Recent Developments

Indonesia. Bank Indonesia (the central bank) initiated a blueprint of Islamic banking development in 2002–12 that identified some key pillars, such as institutional development, regulation and supervision, and education and familiarization of Islamic banking practices (Bank Indonesia 2002). This effort was reinforced with the establishment of Indonesian Financial Services Authority (OJK) in 2011. OJK has released three strategic documents for different financial sectors: a road map of the Islamic banking industry (2015–19), a road map of the Islamic capital market (2015–19), and a road map of the non-bank Islamic financial institutions (2015–19) (IFSA 2015). Furthermore, the President of Indonesia formally declared the formation of the National Islamic Finance Committee (KNKS) in January 2016 to expedite the development of Islamic finance. Consisting of 10 economic and regulatory bodies, KNKS will be responsible for integrating and coordinating comprehensive policies on Islamic economics and finance at the national level.

Legal Framework

Recommendation 8 of the MTR recommends the following: "Develop an appropriate legal, regulatory and supervisory framework as well as an IT infrastructure that would effectively cater for the special characteristics of the IFSI [Islamic financial services industry] and ensure tax neutrality." Figure 4.2 presents the status of Islamic finance laws for the banking, takāful, and capital markets in the

Figure 4.2 Status of Islamic Finance Laws



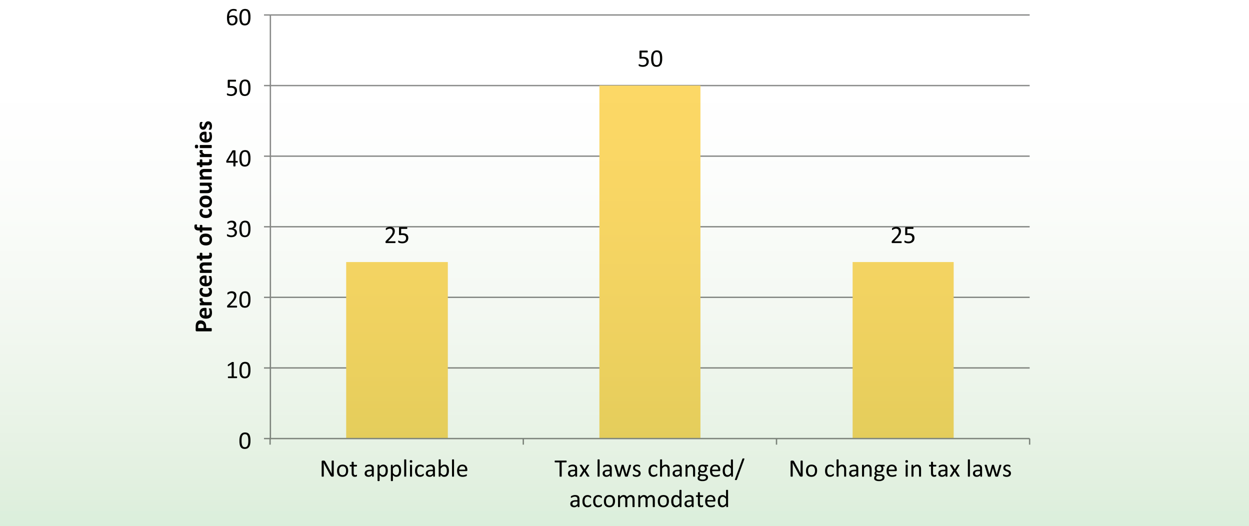
sample countries. The figure shows that 8.3 percent of the countries have an Islamic legal system where all laws are Islamic. The legal regime for Islamic banking shows that while 8.3 percent of the countries also have separate Islamic banking laws, 50 percent of the countries have incorporated Islamic banking clauses in the existing banking laws. Another 8.3 percent of countries have no legal provisions regarding Islamic banking, but regulators are authorized to issue Islamic banking regulations. In 25 percent of the countries in the sample, Islamic banks operate under a single banking law that also covers conventional banks.

While separate takāful laws exist in 16.7 percent of countries, in another 25 percent of the countries, takāful law is incorporated in existing insurance laws. In 16.7 percent of the countries, the regulators are authorized to issue regulations for takāful. In one-third (33.3 percent) of the countries, there are no supporting laws or regulations related to takāful. Though there are no separate laws on Islamic capital markets in any of the countries in the sample, existing capital market laws contain sections on Islamic capital markets in 50 percent of the countries. In another 16.7 percent of countries, regulators have issued regulations on the same. In one-quarter (25 percent) of the countries, there is a single capital market law without any specific indications on Islamic capital markets.

Recent Developments

Malaysia. The Islamic Financial Services Act 2013 (IFSA 2013) was promulgated in Malaysia to provide a sound legal basis for the development of a stable financial sector. The IFSA 2013 consolidated and updated the legal framework for Islamic banks and the takāful sector by repealing the Islamic Banking Act (IBA) 1983 and the Takaful Act 1984. The legislation provides an integrated legal framework and reinforces the regulatory and supervisory framework to promote stable banking and insurance industries (Fen and Tsin 2013). One of the novel features of IFSA 2013 is that it distinguishes between Islamic deposits and investment accounts. In line with Sharīʻah principles, returns on investment accounts depend on the performance of assets underlying the account. As such, repayment of either principal or positive returns cannot be guaranteed. Given this feature, the law requires that Islamic banks enhance their risk management practices and disclose relevant information to protect investors (BNM 2013, 103).

Figure 4.3 Tax Law Status for Islamic Finance



Pakistan. On May 31, 2017, Pakistan enacted Companies Act 2017 (CA 2017) (Act No. XIX of 2017). The Act is one of the first to define a "Sharīʻah-compliant company" as a company that is conducting its business according to the principles of Sharīʻah (2[64]). CA 2017 provides the guidelines for certifying Sharīʻah-compliant companies and Sharīʻah-compliant securities. For a company to be called a Sharīʻah-compliant company, it must be declared Sharīʻah-compliant by the Securities and Exchange Commission of Pakistan. Similarly, a security (listed or not) cannot be called Sharīʻah compliant unless it has been declared Sharīʻah compliant by the Commission (EY 2017). To ensure Sharīʻah compliance, the Act specifies certain conditions in Clause 451. These rules, however, do not apply to banking companies and other companies that are required to follow the Sharīʻah governance framework of State Bank of Pakistan (451 [5]). A person cannot be engaged or appointed to undertake Sharīʻah compliance reviews, Sharīʻah advisory guidance, or Sharīʻah audit activities unless that person meets the fit and proper criteria and terms and conditions specified by the Securities and Exchange Commission of Pakistan. Under disclosure requirements (Fourth Schedule), the Act stipulates that Sharīʻah-compliant companies and those listed on the Islamic index should disclose certain financial information, such as financing obtained using Islamic modes and the mark-up paid on them, Sharīʻah-compliant bank deposits and profit earned from them, revenue generated form Sharīʻah-compliant business, and so on (Fourth Schedule, Part I, 10).

Figure 4.3 shows the status of tax laws with respect to Islamic financial transactions. In 25 percent of the sample countries, tax laws are not relevant for Islamic finance either because no taxes are levied or the whole financial sector is Islamic. In half (50 percent) of the sample countries, the tax regimes have been changed to accommodate to Islamic finance. However, in 25 percent of the sample countries, tax laws have not been changed to address tax-neutrality issues arising in Islamic finance.

Recent Developments

Oman. Article 125 of the Banking Law 2012 of Oman exempts Islamic banks from the imposition of fees levied on the transactions conducted on lands and movable property. Specifically, the article exempts Islamic bank charges imposed by transactions involving ownership and leasing of movables and real estate, overriding a number of other laws, such as land and tax laws related to land transactions (McMillen 2013). This is in consideration of the unique structure of Islamic transactions and to ensure a level playing field. Furthermore, amendments are now being considered to Income Tax Law 2008 to consider the unique features of sukūk.

Turkey. While ijārah sukūk issuance became possible in Turkey with legal developments in April 2010, tax-related issues made the issuance of (domestic) sukūk disadvantageous. In February 2011, Law Offering Tax Amnesty No. 6111 was enacted to facilitate ijārah sukūk. Further legislation includes the exemption from taxes on revenue from sukūk certificates with a minimum tenor of five years. The amendment to the Tax Law in 2011 provided tax neutrality for ijārah sukūk. After the necessary tax regulations were enacted, the first domestic corporate sukūk was issued in October 2011 by Kuveyt-Turk.

Regulatory Framework

Figure 4.4 shows two aspects of the regulatory environment for Islamic finance. Two-thirds (66.7 percent) of the countries in the sample have undertaken specific regulatory initiatives for Islamic banks, while only 41.7 percent of the countries have a separate department dedicated to Islamic banking regulations. The corresponding figures for takāful and capital market regulations are 33.3 percent and 58.3 percent, respectively. Overall, the Islamic banking sector appears to be relatively better regulated than the takāful and Islamic capital markets sectors.

Recent Developments

Nigeria. Islamic finance got a boost in Nigeria in 2011 when the Central Bank of Nigeria (CBN) issued guidelines for the regulations and supervision of institutions offering non-interest-rate–based financial services in Nigeria. The guidelines highlighted additional license requirements to include evidence of a technical agreement executed by the promoters of the proposed institution with an established and reputable Islamic bank or financial institution that clearly specifies the role of the two parties, which should be in force for a period of not less than three years. Moreover, under the guidelines, conventional banks are allowed to open a subsidiary, a window, or a branch of Islamic banking. Separate guidelines for the Islamic banking window's operations were also released in 2011. Following the release of the guidelines, a full-fledged Islamic bank (Jaiz Bank), as well as the Islamic banking windows of Stanbic IBTC and Sterling Bank, and Tijara Microfinance Islamic Bank, were licensed and commenced operations between 2011 and 2014.

Sharī'ah Governance Regime

Recommendation 4 of the MTR recommends the following: "Enhance Shari'ah compliance, effectiveness of corporate governance and transparency." While the implementation plan in MTR 2014 (p. 116) identifies establishing a Sharī'ah governance framework to achieve this goal, the key performance indicators (KPIs) for this recommendation include the following:

Figure 4.4 Regulatory Framework for Islamic Finance

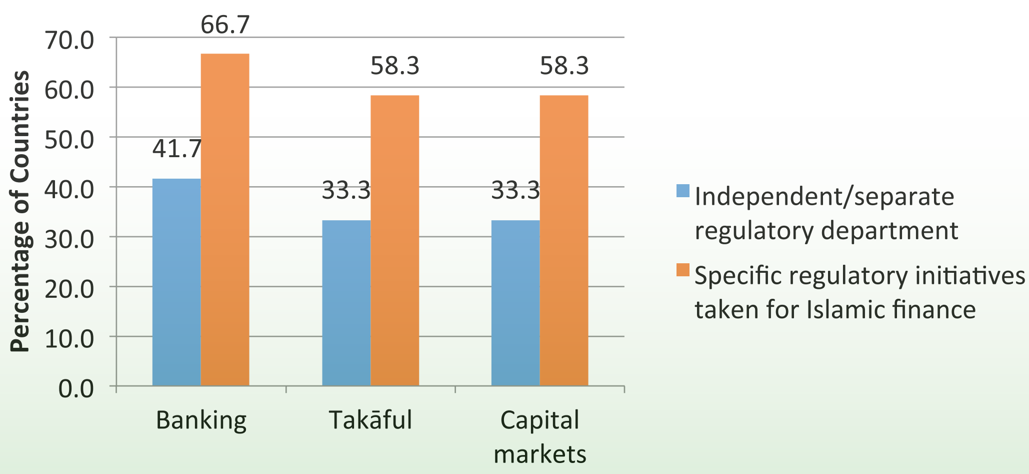
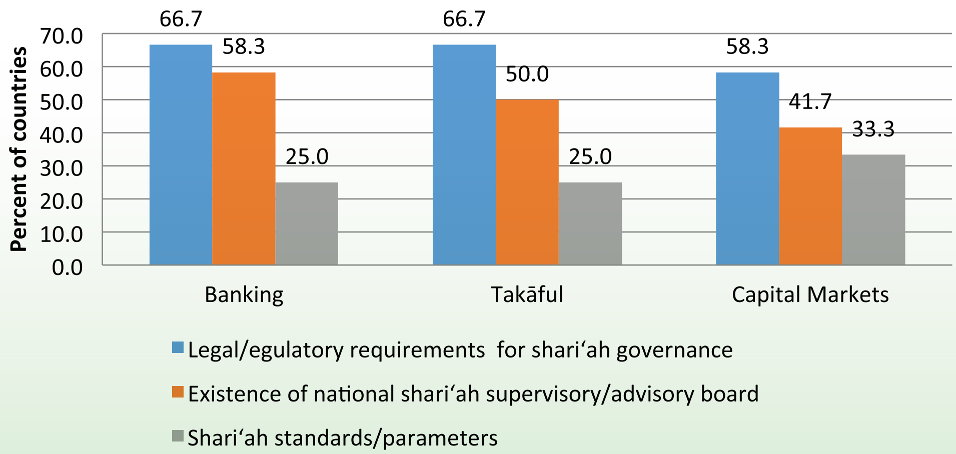


Figure 4.5 Sharīʻah Governance Regimes



- Number of member countries with national Sharīʻah standards or national Sharīʻah boards
- Number of countries adopting international Sharīʻah standards in their supervision framework.

Different aspects of Sharīʻah governance regimes in the countries in the sample are reported in Figure 4.5. Whereas the majority of the sample countries have legal/regulatory requirements for Sharīʻah governance in the banking (66.7 percent), takāful (66.7 percent), and capital markets (58.3 percent), the other aspects of Sharīʻah governance framework show mixed results. In 58.3 percent of the countries in the sample, a central Sharīʻah board exists for the banking sector. The corresponding figures for the takāful and capital markets are 50 percent and 41.7 percent, respectively. Furthermore, while 25 percent of the countries issued Sharīʻah standards for the banking and takāful sectors, one-third (33.3 percent) of the countries have standards for Islamic capital markets.

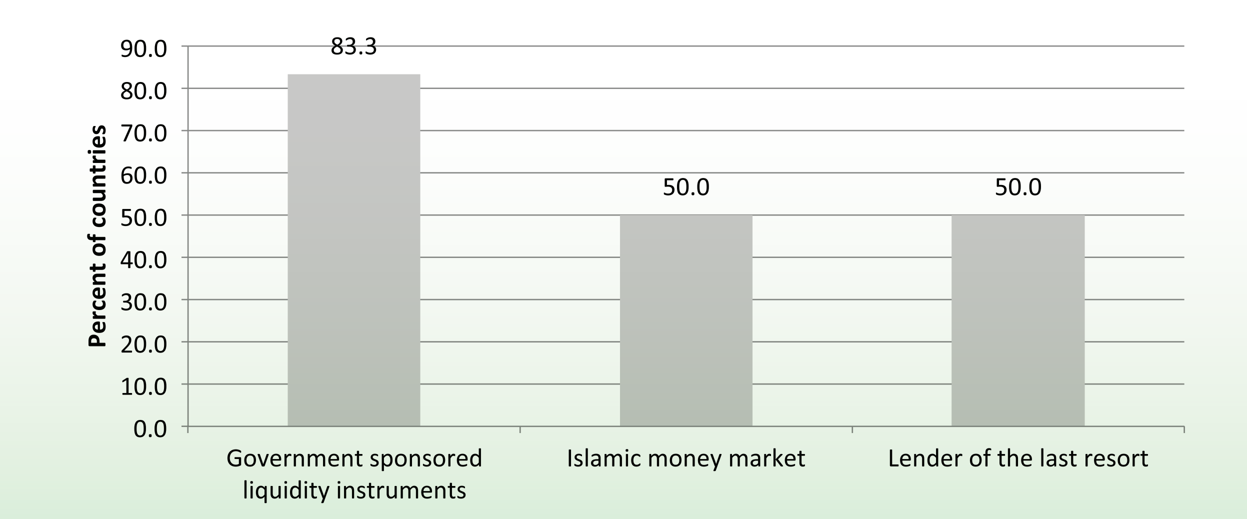
Recent Developments

Malaysia. Enactment of the Islamic Financial Services Act 2013 (IFSA 2013) in Malaysia establishes Bank Negara Malaysia (BNM) (the central bank) as a regulator of Sharīʻah-related issues and emphasizes strengthening the Sharīʻah governance framework to promote Sharīʻah compliance in the Islamic financial sector. Other than providing advice to BNM and financial institutions on Sharīʻah-related issues arising in financial businesses, Section 51 of the Act identifies the functions of the Sharīʻah Advisory Council (SAC) to include ascertaining the Islamic law of any financial matter by issuing appropriate rulings. IFSA 2013 also strengthens the Sharīʻah governance framework at the organizational level (Fen and Tsin 2013). Part IV of IFSA 2013 covers Sharīʻah requirements for Sharīʻah compliance, Sharīʻah governance, and audit and Sharīʻah compliance. The law makes Sharīʻah noncompliance an offence that is punishable and gives BNM extensive powers to intervene when any breach takes place. Specifically, Articles 28 (5) and 29 (6) stipulate that if a person who contravenes Sharīʻah principles and is noncompliant with the standards of SAC "commits an offence [that person] shall, on conviction, be liable to imprisonment for a term not exceeding eight years or to a fine not exceeding twenty-five million ringgit or to both."

Liquidity Infrastructure

A specific element enabling under legal and regulatory regime under Recommendation 8 of the MTR includes liquidity support, such as lender of last resort (LLR) facilities (MTR 2014, 37). The liquidity infrastructure entails necessary instruments and institutions at different levels. Sharīʻah-compliant liquid-

Figure 4.6 Liquidity Infrastructure for Islamic Finance



ity instruments that Islamic financial institutions can use to manage their liquidity needs and risks are essential. Figure 4.6 shows that in 83.3 percent of the sample countries, governments have taken initiatives to issue Sharī'ah-compliant liquidity instruments. Furthermore, in 50 percent of the countries, there is some arrangement for Islamic financial institutions to tap into the Islamic money markets to either place excess funds or draw from these money markets when needed. Similarly, half of the countries sampled also have Sharī'ah-compliant lender of the last resort facilities, whereby Islamic financial institutions can access funds from the central bank when needed.

Recent Developments

Indonesia and Turkey. Various liquidity management instruments can be used by the Islamic financial sector in Indonesia. First, the central bank provides a few Islamic liquid instruments to solve liquidity problems. These instruments include Bank Indonesia Islamic Certificate (SBIS) and Bank Indonesia Islamic Funding Facilities (FASBIS), repurchase (repo) of SBIS to Bank Indonesia, repo of government sukūk (SBSN) to Bank Indonesia, reverse repo of the government sukūk to Bank Indonesia, and deposit of Islamic foreign exchange in Bank Indonesia (Term Deposit Valas). To facilitate the liquidity management of Islamic banks in Turkey, the Undersecretariat of Treasury issued Revenue Indexed Bonds (RIB). While these instruments were available between 2009 and 2012, since 2012 the Treasury has not issued any RIB. However, with the legislation and provision of sukūk in 2011, sukūk have been an important instrument for liquidity management for participation banks in Turkey and elsewhere.

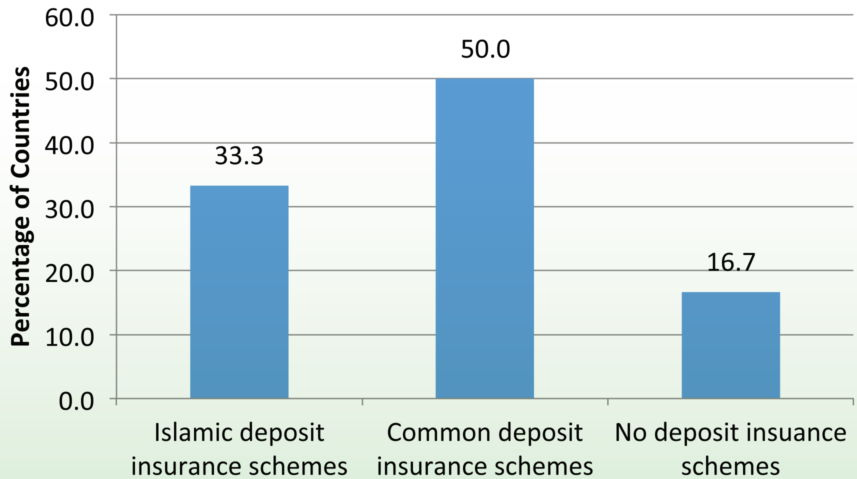
Deposit Insurance Schemes

Recommendation 8 of the MTR (MTR 2014, 37) calls for the presence of safety nets in the form of deposit insurance schemes to protect consumers and instill confidence in the banking system. Figure 4.7 shows that while one-third (33.3 percent) of the countries in the sample have Sharī'ah-compliant deposit insurance schemes, half (50 percent) have a scheme that is used by both conventional and Islamic banks. In 16.7 percent of the countries, deposit insurance schemes do not exist.

Recent Developments

Nigeria. The National Deposit Insurance Corporation in Nigeria introduced a framework for a Non-Interest Deposit Insurance Scheme (NIDIS) in 2012 to cover the depositors of Islamic banks in the country. NIDIS used the model of the Malaysia Deposit Insurance Scheme based on kafālah bil ujur (fee-based guarantee) (Yakasai 2015). The scheme is compulsory for all forms of Islamic banking. The maximum deposit insurance coverage (MDIC) for all Islamic

Figure 4.7 Deposit Insurance Schemes



banking institutions is the same as for conventional banks, which is currently ₦500,000 (approximately $2,538) per depositor per account and ₦200,000 (approximately $1,015) per depositor per account for microfinance banks.

4.4 Policy Response—Unlocking Maturities in Islamic Finance

Despite the remarkable growth of Islamic finance and its expansion to markets beyond its core centers, there are a number of areas in which policy interventions are needed to encourage a paradigm shift away from overreliance on short-term instruments toward adding economic value through a complete spectrum of Islamic financial instruments (see chapter 3). Since long-term investments often require large amounts of funds, unlocking maturities in Islamic finance requires a supportive policy framework that protects all stakeholders and provides appropriate incentives for long- term financing on the basis of risk sharing.

No policy response is complete without addressing the fundamental institutional problems and market failures that impede mobilizing Islamic funds for long-term investments at both the systemic and the usual demand and supply levels (see chapter 1). While direct government interventions may yield few results if they fail to address these impediments, governments have a crucial catalytic role to play. To promote long-term Islamic finance, governments need to focus on fundamental reforms. These include:

- Correcting market failures
- Promoting political and macroeconomic stability
- Remedying existing weaknesses in the institutional framework
- Emphasizing intergenerational investments
- Pooling Islamic liquidity.

Furthermore, to address the structural problems (see section 3.2.2) that restrain the development of risk-sharing–based Islamic finance, creating an enabling environment for risk-sharing–based fund mobilization is one of the key elements in policy interventions. This includes ensuring the level playing field for risk-sharing–based finance by eliminating the relevant legal and regulatory impediments as well as the debt-equity tax bias (World Bank and IsDBG 2016).

Mobilization of funds to long-term investments through non-bank channels situates in a critical position for overcoming the limitations arising from the very nature of banking business such as the maturity mismatch. Accordingly, efforts to nurture the non-bank Islamic financial sector are among the indispensable components of policy action to facili-

Box 4.1 The Role of Central Banks in Long-term Funding

The design of instruments to act as catalysts to match the gap in long-term funding can be assisted if central banks, as stewards of public savings, undertake a role larger than their current narrow remit. Traditional views of central banks assume that they play an important role in monetary and price stability, with supporting roles in financial infrastructure (payment systems) and financial stability (lender of last resort functions).

As the global financial crisis broke, the central banks stepped in by expanding their balance sheets, ranging from three times (European Central Bank) to over six times (Swiss National Bank) from the level in 2007, before the crisis began. Unconventional monetary policy by advanced country central banks had the effect of helping to lower interest rates to unprecedented negative levels. According to Bloomberg, nearly one-quarter ($11.9 trillion) of the Bloomberg Barclays Global Aggregate Index of investment-grade bonds yielded negative interest rates, of which half were issued by Japan and 47 percent by Europe, while one-seventh were owed by businesses, with the balance sovereign paper.

Before the global financial crisis, the fear was that central bank expansion of the balance sheet would have inflationary consequences. But not only was there little inflation, but growth remained sluggish. Richard Koo (Nomura) famously argued that this was a balance sheet recession because previously over-indebted borrowers (households and corporations) rebuilt their balance sheets and refused to consume or invest, which created huge excess capacity from underspending.

As argued in Sheng (2015), central banks can and should do their part in funding sustainability. Inflation will not occur if central banks create monetary reserves during a period of excess capacity, typically in a recessionary environment.

There are two reasons why there was huge excess capacity in the aftermath of the global financial crisis. The first is that the advanced countries were major customers of the global supply chain, so that when demand collapsed after the crisis, there was excess capacity in almost every product category. Initially, commodity prices boomed in the wake of the 2009 Chinese stimulus package, but fizzled after the Chinese cutback in 2012. The second reason is due to the internet revolution. The "uberization" of all types of products and services meant that excess capacity in cars, housing, and anything could be sold at much lower prices. The gig economy, in which even human labor can be sold in terms of spare time, meant that wages could not rise too much, except in highly skilled areas, such as technology.

Under such circumstances, central banks can convert idle savings into productive use through proactive policies. This is exactly the "mismatch" or gap that is missing in the funding of long-term investment. At the heart of the gap between demand and supply of long-term finance is a collective action trap, in which individual actors and stakeholders do not work collectively to solve the funding of global public goods. The missing element in a collective action trap is that no agency or government is willing to absorb the risk (political or otherwise) of making the long-term decision to undertake infrastructure investment, even though the investment may be in national or global public goods.

Central banks are able to fund long-term assets to maturity because of their power to create currency. Since it is costless to print money, central banks can technically hold paper forever and allow inflation to erode the value of both assets and liabilities. The government can always recapitalize the central bank through fiscal means.

In sum, because of its power to create money, a central bank can hold equity subject to its public credibility and trust. But in a financial crisis, when the central bank may be the only buyer available, its action itself is a public good.

The debate over central banks acting as the catalyst for managing the mismatch between maturities, liquidity, solvency, and foreign exchange should be given more airing. Central banks were historically created to deal with national emergencies, such as funding of war. Climate change threatens human existence and therefore should be funded.

tate long-term Islamic financing. In order to better utilize the non-bank Islamic financial institutions in financing long-term investments, the financial sector infrastructure needs to be improved as well as the legal and regulatory framework regarding financial markets, institutions and instruments. On this front, the focus should be on activating collective investment means such as mutual funds and pension funds to channelize savings to long-term investments by risk-sharing–based financial instruments.

In this regard, the establishment of risk-sharing insurance and reinsurance (takaful and retakaful) companies owned by the stakeholders of risk-sharing Islamic financial institutions may be encouraged in order to help mitigate the reluctance to engage risk-sharing–based financing. These insurance programs would be triggered in face of threshold loss. On the other hand, consistent with the advantages of risk sharing, policy makers may consider to establish sectionally specific investment banks and deepen their involvement in the economy. Specialized financial institutions are expected to function well in mobilizing funds for long-term investments through risk-sharing–based mechanisms.

In addition, monetary policy is one of areas in which policy interventions are necessary to enable a paradigm shift from overleverage and short-termism toward more sustainable fund mobilization in financial markets. Benes and Kumhof (2012) discusses the monetary aspects of financial intermediation by analyzing the drawbacks of contemporary financial system. The study, which endorses the monetary reform known as the Chicago Plan, proposes a model in which the monetary and credit functions of financial system is separated in order to facilitate channelization of funds to real economy in a healthy way. The findings of the study are quite relevant to long-term finance. In this regard, central banks can play an important role in pushing the financial sector to serve the real sector, increasing the sustainability and resilience of the financial system by giving policy preference to long-term funding, and acting through its own balance sheet to ensure both liquidity and solvency in the financial system (box 4.1).

Creating new intermediaries and instruments to mobilize resources for long-term finance is inadequate and doomed to failure in the absence of a comprehensive approach. To address impediments, a list of specific policy recommendations is put forward to channel savings and risk-sharing based investments from Islamic banks, Islamic capital markets, institutional investors, FinTech and the Islamic social sector, public-private partnerships (PPPs), and multilateral organizations.

While there is a need to reorient and strengthen the overall legal and regulatory framework for long-term financing, we strongly urge deliberation to assess the impact of any policy regime on the incentives of different types of investors to participate in the long-term financing market. A holistic approach is needed that can cater the needs of several different investors to avoid creating unintended barriers in the provision of long-term financing. The G-30's 2013 report on long-term financing highlights some of the existing proposals such as Solvency II and liquidity coverage ratios as potentially detrimental to long-term investments.

Islamic Banks

Given the role of maturity and liquidity transformation that banks traditionally perform, the scope for financing long-term illiquid assets using short-term liquid liabilities can be limited. A viable option to deal with large-scale projects with longer-term maturities is to use syndicated financing to mitigate risks arising from long-term project financing. As a relatively new industry, Islamic syndicated financing is small and underdeveloped (Khaleq and Meher 2012). The potential of using shari'ah-compliant syndicated financing for long-term financing for larger projects in the future is expected to improve with the expansion of the industry. Islamic banks can also offer investment accounts with profit-sharing arrangements to their customers with long-term investment horizons with some locking arrangements. Furthermore, the Islamic Financial Services Board (IFSB), in coordination with other relevant standard-setting bodies, should review the regulatory treatments of assets held with long-term horizons to assess their systemic impact on long-term investment appetite and deflate any unintended bias for short-term investment, with a view to moderate risk at the system-wide level.

The following measures may be taken to promote risk-sharing and long-term finance in Islamic banking:

- Establish the legal and regulatory environment that ensures effective enforcement of contracts over longer terms.
- Improve information disclosure and transparency.
- Provide appropriate tax incentives for extending maturities.
- Enable Shariah-compliant risk-mitigating mechanisms for extending maturities.

Islamic Capital Markets

Capital markets are another ideal source for long-term financing. However, Islamic capital markets remain largely underdeveloped, which undermine their potentiality.

The following proposals are put forward to address weaknesses that currently shorten financing horizons and render Islamic capital markets underdeveloped (where they exist):

- Improve the protection of investor rights by introducing efficient functioning processes. Establish effective mechanisms for resolving disputes, institute a sound insolvency framework.
- Provide a level playing field for Islamic financial instruments in competing with conventional counterparts. Introduce tax neutrality for Islamic finance.
- Enhance the governance and informational infrastructure by developing credit information systems, accounting and disclosure rules, internal and external auditing systems, shari'ah auditing systems, and shari'ah compliance screens.
- Engage domestic institutional investors in Islamic capital markets development initiatives, making sure to lift any restrictions that may impede their participation.
- Create new instruments to mobilize voluntary sector resources for long-term financing.
- Encourage households' participation in Islamic capital markets by channeling their savings through the use of Islamic mutual funds and brokerages enable with financial technology (FinTech).
- Facilitate secondary market trading by strengthening components of market infrastructure, such as trading, depository, and clearing and settlement systems.
- Foster collaboration among stakeholders across the universe of ethical finance, which comprises environmental, social and governance (ESG) finance as well as Islamic finance, in order to attract ESG conventional liquidity into Islamic capital markets.
- Provide tax neutrality among debt-based and equity-based financial instruments.

Furthermore, as recommended by Kuala Lumpur Declaration, governments could issue macromarket instruments that would provide their Treasuries with a significant source of non-interest-rate–based financing while promoting risk sharing, provided that these securities meet three conditions: they are of low denomination; are sold on the retail market; and come with strong governance oversight. In addition to funding Treasuries, low-denominated risk-sharing instruments can help achieve the previous proposal and promote shared prosperity. On the other hand, the Islamic International Rating Agency (IIRA) should lead efforts to foster the development of project-specific sukūk by establishing standards for ratings and general information dissemination.

Institutional Investors

Institutional investors, such as pension funds, sovereign wealth funds, takāful, and awqāf, represent a large potential source of long-term financing. While their long-term investment horizons are conducive to long-term financing, their current allocations to long-term projects are still low. A more meaningful participation of institutional investors in long-term financing is possible if the issues of policy uncertainty, lack of appropriate financing vehicles, unfamiliarity with and inadequacy of investment and risk management expertise in this asset class, regulatory restrictions, and lack of verifiable high-quality data are addressed.

Against this backdrop, G-20/OECD (2013) has come up with high-level principles that recommend a conducive legal and regulatory environment and policies that can promote long-term savings through pooled investment vehicles. This can be done by establishing and supporting policies that can, among other things, increase efficiency, reduce costs and tax burdens, enhance transparency, and enhance the predictability of cash flows.

On this front, efforts to leverage institutional investment schemes for long-term finance should be directed toward reforming and developing current pension systems. Regulators in OIC member countries and international standard-setting bodies, including the Islamic Financial Services Board, should issue new best-practice guidelines to reinforce long-term horizons in the governance and portfolio management of public pension funds and sovereign wealth funds. This is necessary to overcome increased short-term biases in existing governance models and incentive compensation. New performance metrics must be developed to discourage the use of short-term market benchmarks. The new measures should be transparent and consistent with long-term investment horizons.

The following proposals are put forward to address the previously discussed and other impediments in OIC member countries:

- Accelerate growth in takāful markets by providing tax incentives for takāful contributions, especially for life takāful suitable for long-term investments.
- Increase the efficiency of structural surpluses in national savings by redirecting them to sovereign wealth funds with a long-term shari'ah-compliant investment mandate.
- Focus policy efforts on channeling investments of institutional investors to their domestic economies in favor of greater sustainability against the potentially destabilizing reliance on foreign investments. At the same time, strengthen the governance arrangements around such domestic investment to minimize any potential conflict of interest or political interference that could undermine allocative efficiency.
- Design macroprudential tools following international best practices and standards to reduce incentives for short-term foreign investment, along the lines of a Tobin tax[22].

FinTech and the Islamic Social Sector

FinTech may provide a huge boost to Islamic banking and finance by creating a quantum leap in the design and adoption of truly risk-sharing Islamic financial instruments. Despite the huge potential, technological innovations remain underutilized in the Islamic finance sphere.

- Governments should provide incentives for Islamic financial innovation based on FinTech solutions, especially for mobilizing the dormant Islamic social sector toward investments with environment and social impacts, as well as economic ones (impact investing). Crowdfunding, for example, can pool resources (zakāt, ṣadaqāt, waqf) from small surplus units and channel them toward investment in large-scale projects that would otherwise be beyond the scope of any one individual. This will effectively create new instruments geared toward the provision of long-term Islamic finance.
- Regulations based on technology solutions should be developed to ensure the smooth functioning of FinTech markets
- Government and multilateral development institutions such as the Islamic Development Bank (IsDB) can provide a leadership role for FinTech to effectively pool funds for Islamic investments from various resources (households, firms, and the social sector) and reduce the heavy reliance on bank lending[23].

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[22] A Tobin tax is a tax on spot conversions of one currency into another in order to impose a penalty on short-term currency speculation.
[23] Crowdfunding has been successful in financing projects that have problems with traditional funding. Therefore, it should be seen as a supplement to existing financing sources that has the potential to work where these models fail. See chapter 3.

Public-Private Partnerships

Amidst challenging global financial conditions and suppressed public finances, many countries are resorting to public-private partnerships (PPPs) to realize long-term investments. As noted in the 2016 McKinsey study, Bridging Global Infrastructure Gaps, PPPs "will continue to be an important source of financing in the future. But since they account for only about 5 percent to 10 percent of total investment, they are unlikely to provide the silver bullet that will solve the funding gap. Public and corporate investment remain much larger issues" (Woetzel et al. 2016). As such, the conditions should be set for PPPs to provide a much larger share of total investment.

While the asset-backed nature of Islamic finance structures and their emphasis on shared risks make them a natural fit for PPPs, the legal framework governing such initiatives must be enhanced to reap the benefit of deploying Islamic finance for PPP projects. A key legal issue for PPPs is the existence of concession law that defines the rights and obligations of different parties at various stages of the transaction. The European Bank for Reconstruction and Development (EBRD 2006) provides a list of core principles for a modern and well governed concession law, including having clear rules to ensure a stable and predictable legal framework; promoting transparency and fairness; protecting the rights of different stakeholders, including financiers; and providing state support in the form of guarantees and undertakings. Not only are concession laws needed, but the Islamic perspective on these laws also must be clearly understood[24]. In this regard, while AAOIFI has issued Sharīʻah standards for concession law, they have not yet been implemented in different jurisdictions.

The following steps may be taken to facilitate greater use of Islamic financing in PPP projects (World Bank 2017).

- Raise awareness on the ways Islamic finance could be mobilized for PPP projects to help overcome challenges in acquiring long-term finance.
- Develop a comprehensive list of projects, more case studies, and a data repository on Islamic finance for PPPs.
- Build capacity—including institutional and human resources in central and local governments, regulators, the private sector, and central banks—to explore Islamic finance for PPPs.
- Identify pilot projects to demonstrate the implementation of Islamic finance for PPPs and to stimulate further mobilization of Islamic finance for PPP projects.
- Develop new products and expand existing ones to increase the use of Islamic finance for PPP projects.
- Standardize documentation and approaches to facilitate implementation of Islamic financing modes in PPP projects.
- Mobilize local Sharīʻah capital for long-term investments through PPPs by creating a local currency financing facility.
- Set up Sharīʻah-compliant funds that have the mandate to participate in financing PPP projects.
- Create an enabling environment that promotes PPP projects.

Multilateral Organizations

Unequivocally, as highlighted in the G-30 report, "addressing the need for adequate long-term finance requires a sense of urgency. The solutions are not simple: they are complex, multifaceted and multidimensional. No single authority can drive change in this arena." Multilateral development banks (MDBs) such as the World Bank and the Islamic Development Bank can play an important role not only in providing long-term financing, but also in helping create an environment that facilitates domestic investment in long-term investments collectively. In addition to providing technical assistance to enhance

[24]While a concession law may enable the use Islamic financing for infrastructure projects, some shari'ah issues can arise with the arrangement. As concessions involve the transfer of assets for a limited period of time, issues related to transfer of ownership and/or lease of the asset and the responsibilities of the parties involved need to be addressed from a shari'ah perspective.

the institutional framework, these organization can also provide advice on some specific operational-level issues related to long-term financing. Benefiting from their cross-country experiences, some of the specific steps that MDBs can take to promote long-term financing by the Islamic financial industry include the following:

Help countries improve the overall macroeconomic environment.

- Offer knowledge and policy advice for institutional reform and policies for increasing long-term investment. Suggest policies that align incentives, pricing, and regulations to promote long-term financing. These would include providing a policy framework to overcome constraints related to information and capacity.
- Provide know-how to build the financial architecture that would encourage the development of Islamic capital markets and nonbank Islamic financial institutions.
- Identify the underdeveloped segments and areas of market failures and suggest necessary institutional set-ups and incentives that can promote private sector involvement in long-term financing.
- Provide technical assistance to build capacity and institutions that can promote domestic mobilization of long-term financing and the development of local capital markets and Islamic institutional investors.
- Provide specific technical knowledge and expertise related to application of standards in project design and preparation, risk management policies, and corporate governance
- Help create the legal and regulatory framework for public-private partnerships for long-term infrastructure investments.

OIC governments and multilateral organizations should step up efforts to provide risk-mitigation mechanisms to lower the high start-up risks, other project-specific risks, political risks, and/or macroeconomic risks associated with long-term investments. Tools may include risk-sharing–based public-private partnerships, shari'ah-compliant currency swaps, and takāful. The Multilateral Investment Guarantee Agency (MIGA), for example, a member of the World Bank Group, offers political risk insurance and credit enhancement guarantees that help protect foreign direct investors against political and noncommercial risks in developing countries. Strategic partnerships between MIGA and the Islamic Corporation for Insurance of Investments and Export Credits (ICIEDC) may foster development of shari'ah-compliant risk mitigation mechanisms and enhance long-term investment prospects in OIC member countries.

Table 4.2 presents policy recommendations that would help promote the contribution of Islamic finance to long-term investments. The policies are presented corresponding to the challenges that the Islamic financial sector faces in long-term financing that are discussed in this report. Furthermore, the policies are discussed at two levels: steps that the government and public bodies can take, and issues related to Islamic financial institutions and markets.

Table 4.2 Policy Recommendations for Promoting Islamic Financial Sector Long-term Financing

Challenges	Policy recommendations	
	Public policies	**Financial institutions**
Political and macro-economic environment	• Enhance political and macroeconomic stability to reduce long-term risks. • Pursue prudent monetary and fiscal policies to keep inflation low. • Strengthen the institutional framework to promote protection of property rights, rule of law, good governance, and sound infrastructure to enhance credit information and information about long-term projects. • Establish a stable and predictable legal and regulatory environment to reduce long-term risks. • Provide appropriate incentives for long-term financing to all stakeholders. • Ensure effective enforcement of contracts over longer terms. • Work on changing the investment culture and behavior with respect to long-term investments.	• Provide appropriate tax incentives for extending maturities. • Enable *shari'ah-compliant* risk-mitigating mechanisms for extending maturities. • Review the regulatory and accounting treatments of assets held with long-term horizons to assess their systemic impact on the appetite for long-term investment. • Establish sectionally specific investment banks and deepen their involvement in the economy in order to boost the mobilization of funds for long-term investments through risk-sharing–based mechanisms.
Dominance of an over-exposed Islamic banking subsector	• Amend the legal and regulatory framework regarding financial markets, institutions and instruments to pave the way for the development of nonbank Islamic financial sector. • Increase competition in the financial sector by promoting other nonbank financial institutions (NBFIs). • Improve market infrastructures to support and expand Islamic capital and *sukūk* markets.	• Establish Islamic NBFIs such as leasing/ *ijārah* companies and Islamic investment banks. • Develop and expand Islamic institutional investors (such as mutual funds and pension funds). • Encourage the establishment of risk-sharing insurance and reinsurance (takaful and retakaful) companies owned by the stakeholders of risk-sharing Islamic financial institutions to help mitigate the reluctance to engage risk-sharing–based financing. • Adopt best-practice guidelines to reinforce long-term horizons in the governance and portfolio management of Islamic institutional investors and sovereign wealth funds. • Increase the efficiency of structural surpluses in national savings by redirecting them to sovereign wealth funds that back long-term investments.

table continues next page

Table 4.2 Policy Recommendations for Promoting Islamic Financial Sector Long-term Financing *(continued)*

Challenges	Policy recommendations	
	Public policies	Financial institutions
Lack of prerequisites for risk-sharing–based Islamic finance	• Create an enabling environment for risk-sharing–based fund mobilization. • Ensure the level playing field for risk-sharing–based finance by eliminating the relevant legal and regulatory impediments as well as the debt-equity tax bias. • Reorient the institutional environment to support asset-based and equity-based long-term financing. • Strengthen information infrastructure to enhance credit market information on long-term projects.	• Promote long-term savings through collective investment vehicles. • Establish organizations that utilize asset-based and equity-based financing (such as leasing companies, venture capital firms, private equity firms, and crowdfunding platforms). • Improve the quality of corporate governance in firms to support long-term viability and financing. • Consider providing risk mitigation mechanisms such as risk-sharing public-private partnerships that enhance long-term investment prospects. • Improve skills to manage long-term risks.
Market failures and policy distortions	• Change regulatory and tax regimes to create a level playing field for debt and equity. • Create credit information schemes to assess the credit history and ratings of firms and individuals. • Create incentives to promote long-term savings. • Provide guarantees and risk insurance to reduce uncertainty related to long-term investments.	• Develop efficient products that promote long-term savings and investment. • Create incentives that promote equity-based long-term financing. • Strengthen accounting and disclosure rules, internal and external auditing systems, corporate governance, *shari'ah* auditing systems, and *shari'ah* compliance screens.
Financial education and consumer protection	• Improve financial literacy of Islamic financial products for small and medium enterprises and households. • Strengthen the legal and institutional environment for contract enforcement protecting investors' rights.	• Highlight the benefits of long-term risk-sharing modes to both investors and financial institutions.
Underutilization of the Islamic social sector	• Reform the legal and regulatory environment to support the Islamic social sector.	• Develop innovative solutions to re-invigorate the *waqf* sector for investing in long-term projects.
NextGen Islamic finance	• Develop an enabling regulatory framework to ensure the smooth functioning of FinTech markets. • Establish educational institutions to develop adequate knowledge and skills in Islamic finance in general and capital markets and institutions in particular. • Promote innovation by providing a supporting institutional set-up that supports development and investments in new fintech companies.	• Develop financial institutions reflecting the broader goals of serving the economy, society, and the environment. • Develop innovative FinTech-based financial institutions to provide diverse financial products.

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3	Developments and Challenges in the Islamic Financial Sector	Dawood Ashraf Muhammed Obaidullah Umar Taufiq Ayse Nur Aydin Muharrem Cevher
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